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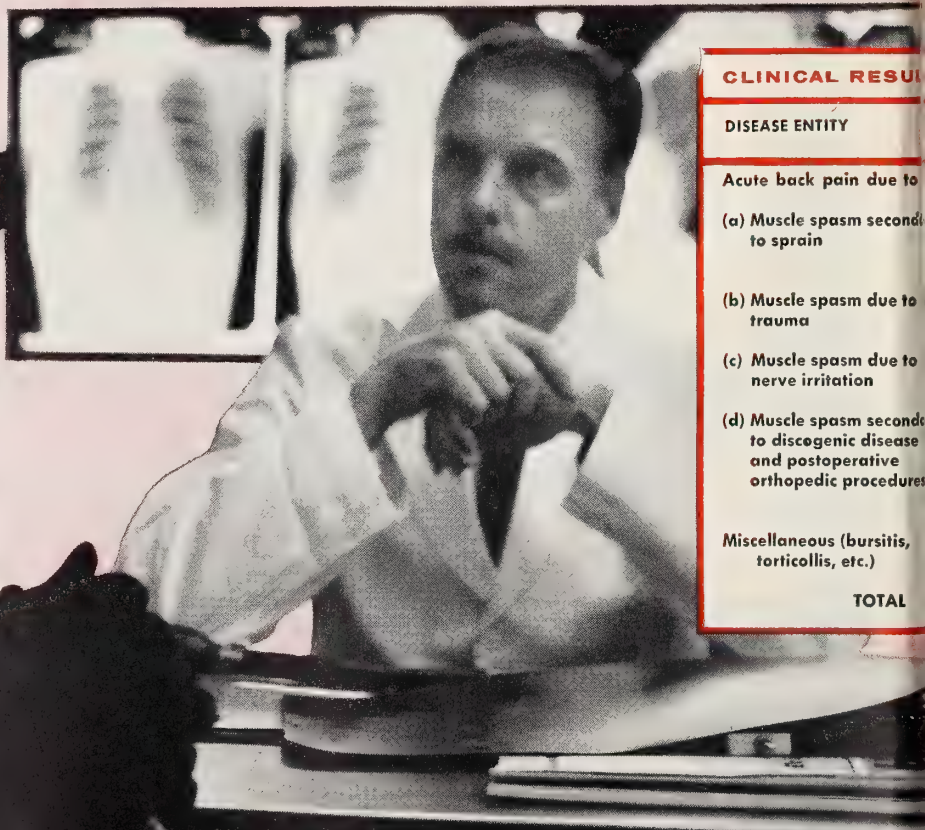
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- **Relatively free of adverse side effects.**^{1,2,3,4,6,7}
- **Does not reduce normal muscle strength or reflex activity in ordinary dosage.**⁷
- **Beneficial in 94.4% of cases with acute back pain due to muscle spasm.**^{1,3,4,6,7}



CLINICAL RESULTS

DISEASE ENTITY

Acute back pain due to

(a) Muscle spasm secondary to sprain

(b) Muscle spasm due to trauma

(c) Muscle spasm due to nerve irritation

(d) Muscle spasm secondary to discogenic disease and postoperative orthopedic procedures

Miscellaneous (bursitis, torticollis, etc.)

TOTAL



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When tested in 72 patients with acute back pain involving muscle spasm, ROBAXIN induced marked relief in 59, moderate relief in 6, and slight relief in 3 – or an over-all beneficial effect in 94.4%.^{1,3,4,6,7} No side effects occurred in 64 of the patients, and only slight side effects in 8. In studies of 129 patients, moderate or negligible side effects occurred in only 6.2%.^{1,2,3,4,6,7}

ROBAXIN IN ACUTE BACK PAIN ^{1,3,4,6,7}						
DURATION OF TREATMENT	DOSE PER DAY (divided)	RESPONSE				SIDE EFFECTS
		marked	mod.	slight	neg.	
2-42 days	3-6 Gm.	17	1	0	0	None, 16 Dizziness, 1 Slight nausea, 1
1-42 days	2-6 Gm.	8	1	3	1	None, 12 Nervousness, 1
4-240 days	2.25-6 Gm.	4	1	0	0	None, 5
2-28 days	1.5-9 Gm.	24	3	0	3	None, 25 Dizziness, 1 Lightheadedness, 2 Nausea, 2 *
3-60 days	4-8 Gm.	6	0	0	0	None, 6
		59	6	3	4	* Relieved on reduction of dose

Indications – Acute back pain associated with: (a) muscle spasm secondary to sprain; (b) muscle spasm due to trauma; (c) muscle spasm due to nerve irritation; (d) muscle spasm secondary to discogenic disease and postoperative orthopedic procedures; and miscellaneous conditions, such as bursitis, fibrositis, torticollis, etc.

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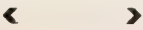
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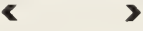
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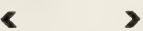
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1. Fromer, J. L., and DeRisio, V. J.: *Lahey Clin. Bull.* 10:45, Oct.-Dec., 1956.

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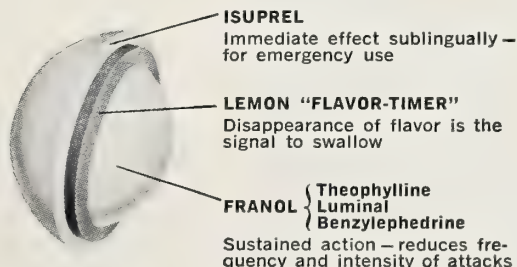
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The Month in Washington



Washington, D. C.,—Eleven years ago, in passing National Employment Act of 1946, Congress provided for two organizations whose sole function is to promote maximum employment, maximum production and maximum purchasing power. One is Congress' own Joint Economic Committee; the other, the President's Council of Economic Advisers.

The President's Council constantly studies all forces—social as well as financial—that affect employment and production, and before each January 20 makes its report to the President, who in turn utilizes that in drafting his annual economic report to Congress.

At the same time the Congressional Joint Economic Committee is making its own separate studies, holding hearings and preparing a background of information against which to judge the President's economic recommendations when they come before it. The Congressional committee, however, is wholly advisory; it does not itself draft legislation but makes public its annual report before each March.

Although this committee is denied legislating power, its influence often directs the course of legislation. For example, a strong, one-page report from this committee is credited with keeping Congress in session after start of the Korean war and thus preventing a scheduled decrease in taxes.

When it calls in witnesses, the Joint Committee attempts to obtain a broad cross-section of opinion—the liberal along with the conservative. For this reason, recent hearings under sponsorship of the Joint Committee attracted more than casual interest. They brought togeth-

er conflicting general philosophies and controversial specific issues. In the health-welfare fields, the following were some of the views:

The question of hospitalization for the retired aged through the social security mechanism was debated pro and con by the panelists. Two views:

Prof. Wilbur Cohen, University of Michigan—The former Social Security official maintains that the system can stand the drain of hospitalization for the aged. It could be done for one half of 1% of taxable income, he argued, and he would raise the latter to the first \$6,600 of income instead of the present \$4,200.

W. Glenn Campbell, American Enterprise Association—Congress should give the medical profession and the insurance industry a chance to work out this problem through traditional methods rather than institute a costly compulsory system with all its attendant damage to the effective practice of medicine.

Two other panelists expressed parallel views on the broader and philosophical aspects of health and welfare:

Secretary Folsom of HEW—The burdens of disease, disability, ignorance and insecurity cannot be escaped by under-investment in health, education and welfare. Such an under-investment would have a costly effect on private charities, budgets of governments, efficiency of industry and the purchasing power of consumers.

Prof. Clarence D. Long, Johns Hopkins University—An expansion of social welfare programs will have a very great stimulating effect on the economy, provided we play down those programs that involve mere charity and em-

(Continued on page 34)

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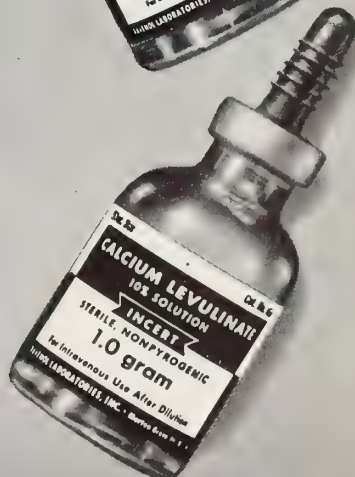
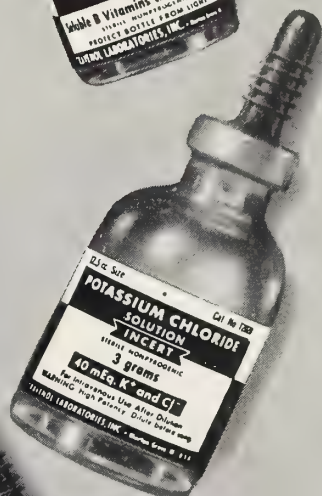
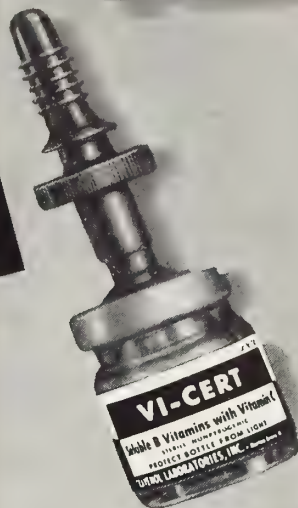
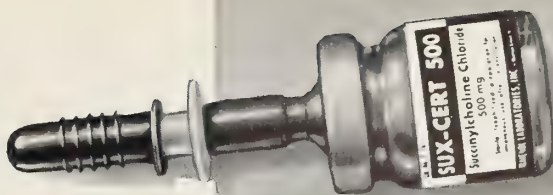
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WASHINGTON (Continued)

phazise those that help people to help themselves.

On the day of the hearing on health, education and welfare, the panelists agreed that no crash programs in education were called for despite the scientific manpower shortages. Other comments on education:

Professor Paul J. Strayer, Princeton University—Either federal aid will be forthcoming on terms that can be acceptable to the states or we will suffer a general deterioration in the quality of education.

President Howard R. Bowen, Grinnell College—Federal aid should not be granted directly to colleges and universities but through intermediary non-profit corporations controlled by boards of trustees made up of distinguished citizens.

NOTES

A possible indication of legislation in 1958 comes from a December tour of southern medical schools by members of the House Interstate and Foreign Commerce Committee's health subcommittee. Among other things, they were con-

cerned with the schools' need for more laboratories and classrooms.

The Department of Health, Education, and Welfare has started a 12-year study on the activities of a group of 3,000 newly retired men and women.

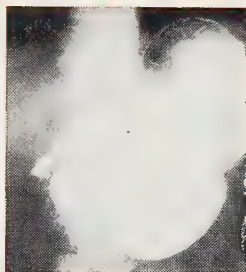
Community-wide chest X-ray campaigns to detect tuberculosis, long a popular public health device, now are in disfavor with U.S. Public Health Service. PHS recommends instead that tuberculin skin tests be used generally with chest X-rays reserved for selective groups likely to have high incidence of the disease.

Between July 1 and mid-December, almost half the population of the country had been taken ill with an upper respiratory condition, including Asian influenza.

In its first year of operation, Medicare spent \$43 million, with \$22 million going to civilian physicians and \$21 million to civilian hospitals; administrative costs ran about 3%. Some claims are still pending.

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The ILLINOIS Medical Journal

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JANUARY, 1958
VOL. 113, NO. 1

Traumatic Pancreatic Cysts

LORIN D. WHITTAKER, M.D., PEORIA

Pancreatic cysts are rare. In a review of the literature the incidence was found to be one pancreatic cyst to each 25,000 to 50,000 admissions. I shall briefly review the history and management of two personal cases presenting three traumatic pancreatic cysts. (Cases of true pancreatic cysts will not be included). These cases are of some added interest in that they occurred in children.

Untreated pancreatic cysts may lead to serious complications. Many pancreatic cysts are not diagnosed until operation, and to be conversant with the pathogenesis and the methods of treatment may bring to a successful conclusion a case otherwise condemned to failure. While this report is concerned only with traumatic cysts of the pancreas, a brief classification and description of pancreatic cysts in general will be beneficial.

CLASSIFICATION

Many classifications of pancreatic cysts have been made. I choose to consider them under three headings: the pseudocyst, the true retention cyst, and the group of cystadenomas.

The pseudocyst is the most frequently reported type, comprising approximately 55% of cases reported by reviewers. These lesions have no epithelial lining. The cyst wall is made up

partly of membranous connective tissue and partly of adjacent organs. The cyst usually is found within the lesser peritoneal sac, between the stomach and liver or between the leaves of the mesocolon. It may be attached intimately to the mesenteric vessels and adjacent organs. Various authors report that up to 95% of reviewed cases had pancreatitis or gall bladder disease previously. Physical trauma frequently is mentioned as an etiological factor but rarely reported as such. The development of the pseudocyst following acute pancreatitis is dependent on the degree of destruction of the gland and ductal system. Edema or necrosis of the gland may lead to rupture of the capsule and or the ductal system, releasing much necrotic debris and pancreatic enzyme into the lesser peritoneal sac. This irritation leads to further outpouring of fluid, all of which is contained by inflammatory tissue reaction and adjacent structures. The resultant cyst may contain clear fluid, blood, or bile stained fluid. Necrotic debris may be present. A communication to the ductal system may persist.

The second group consists of true retention cysts and comprises approximately 25% of the cases reported by reviewers. These cysts are lined either by columnar or cuboid epithelium. Pancreatic tissue frequently is found extending up on to the wall of the cyst. Previous pancreatitis

Presented before the 117th Annual Meeting, Illinois State Medical Society, Chicago, May 22, 1957.

or gall bladder disease is noted infrequently in contrast to the almost constant antecedent occurrence in the pseudocyst. True retention cysts are thought by many to result from pancreatic duct obstruction or by proliferation of acinous tissue with cyst formation. The majority are unilocular.

The third group are the cystadenomas and comprise approximately 20% of the reported cases. They usually are multilocular and are lined with epithelium. Approximately one-third of the cystadenomas are malignant.

SYMPTOMS

The usual symptoms of all types of pancreatic cysts are those associated with an epigastric mass or with pancreatic and biliary disease. Many cases present no symptoms until a mass is evident or pressure is produced on adjacent organs. However, in the traumatic or pseudocyst a history of previous severe illness often can be obtained. Severe pancreatitis leading to rupture of the capsule or ductal system allows pancreatic fluid and enzymes to escape into the lesser sac with the development of a severe tissue reaction. The causative factor may have been regurgitation of bile into the pancreatic ducts secondary to a common duct stone. The patient then will present symptoms of peritonitis with or without jaundice. Post-operatively, seepage may occur from the pancreatic bed of a resected penetrating gastric ulcer with severe symptoms of upper abdominal irritation. Severe physical trauma may cause rupture of the pancreatic capsule, ductal or blood vessel systems with leakage of pancreatic enzymes, reactive fluid, or blood. The patient may then experience a trying period of recovery with elevated temperature and marked peritoneal irritation. After the irritating fluid is confined by the membranous and fibrinous reactive cyst wall, symptoms are less severe. If pancreatic destruction has been severe, mild diabetes or loose fatty stools may be recorded. Anorexia and loss of weight develop as the mass enlarges. The presence of a firm, tense, smooth, relatively fixed epigastric mass is highly suggestive. Tenderness is dependent upon associated inflammatory reaction or tenseness of the cyst.

Roentgen examination is of utmost value. The findings will vary somewhat with the location of the cyst. The most valuable sign is the

widening of the duodenal curve, particularly when the cyst is large or arises from the body or head of the gland. The stomach may be displaced upward and forward and the colon downward. Compression of the stomach, duodenum, and colon adjacent to the cyst is noted. The differential diagnosis is concerned with all cysts or tumors of the upper abdomen.

TREATMENT

Treatment of all pancreatic cysts is surgical. It must be individualized. If surgery is not carried out there is grave danger that rupture of the cyst may occur, followed by fatal peritonitis. Bowel or biliary obstruction by pressure of the extrinsic mass be noted. The cyst may be malignant.

There are three basic operations: excision of the cyst, external drainage by marsupialization, and internal drainage by anastomosis to some part of the upper gastrointestinal tract. The cyst may be approached through the gastrohepatic or gastrocolic omentum.

Excision can be carried out in about 25% of the cases, with a mortality of about 10%. True cysts have few adhesions and usually may be resected satisfactorily. However, in the pseudocyst, adhesions to vessels or organs make cleavage planes difficult to develop and may preclude resection.

External drainage by marsupialization has been performed by some in over 50% of their cases. It is accomplished by opening the cyst adequately and suturing the wall to the skin. The advantage of this method lies in the low initial mortality of 4%. If drainage persists, the fistulous tract can be anastomosed to the gastrointestinal tract. To me, however, there are rather positive disadvantages to this method. There is a marked loss of electrolyte, fluids, and enzymes up to 500-600 cc. daily, with loss of weight and nutrition; drainage may be quite prolonged; skin erosion is common; and fistula persists in as many as 50% of the cases and a secondary implantation becomes necessary.

Internal drainage by anastomosis to the gastrointestinal tract seems to be gaining in favor with many surgeons. The advantages of internal drainage are substantial. All the electrolytes, fluids, and enzymes are returned to the gastrointestinal tract. Skin erosion, the demoralizing effect of prolonged drainage, and secondary op-

erations are avoided. Autopsies following death from other causes after six months to a few years have shown the cysts to be completely obliterated.

Anastomosis is made to the stomach, duodenum, or jejunum. The stomach can accept this secretion but the operation is less physiologic. The most physiologic approach is anastomosis to the duodenum but this is not always possible due to the location of the cyst. Anastomosis to the jejunum is quite satisfactory, either side to side or by the Roux Y operation. The advantage of the latter lies in the prevention of regurgitation and activation of enzymes within the cyst. Regurgitation into the cyst rarely is noted by X-ray.

To be conversant with the various operations available will permit the surgeon to select the procedure most suitable for each case. The management of each case must be individualized. At present, internal drainage by anastomosis to the gastrointestinal tract would seem to me to be the procedure of choice in most cases.

CASE REPORTS

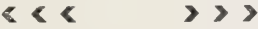
Case No. 1. Pseudocyst of the pancreas: W.H., male, age 17, complained of mild generalized abdominal distress at infrequent intervals for one year before admission. There was no history of severe abdominal symptoms or injury to the abdomen. Upon admission, pain became severe and remained generalized. Nausea was noted, the abdomen was quite tender, and a resistance was noted in the epigastrium and right upper quadrant of the abdomen. The temperature was 99.6°F. and the white blood count 12,600. He was operated upon as an acute abdominal emergency. There was a large cystic mass covered with omentum and presenting between the stomach and colon. It was approximately 10 x 15 cm. in size and arose from the body of the pancreas. The cyst was aspirated of clear fluid and dissected free from the transverse colon, duodenum, and stomach. A small remnant of the cyst wall was left adherent to the pancreas because of marked oozing from the pan-

creas on attempted removal. Bleeding was controlled by suture and oxycel gauze. The pathologist reported the cyst to be fibrous without specific lining. It was multilocular with free communication between locules. The patient made an uneventful recovery, was dismissed on the 10th day postoperatively, and has been well since.

Case No. 2. Multiple pseudocysts of the pancreas: M.F., male, age 14, was injured in July, 1956 in an automobile accident and confined to the hospital for ten days. He complained of severe abdominal pain, gas, and tenderness. He developed a temperature to 100.8°F. and had a white blood count of 15,600 with 84% neutrophils. He left the hospital improved but still complaining of distension. He was admitted to a hospital again two weeks later and first came to our attention. He complained of pain in the left upper abdomen. An irregular tense mass approximately 8 x 10 cm. was noted in the epigastrium. At operation it was noted that two separate cysts were present. One arose from the superior margin of the distal third of the pancreas, bulging up under the fundus of the stomach and intimately adhered to it. The second arose from the inferior margin of the mid-third of the pancreas, forcing the colon downward. Two fingers could be placed on the uninvolved pancreas between the cysts. The cyst to the right was evacuated through the adherent transverse mesocolon and anastomosed to the jejunum just distal to the ligament of Treitz. The upper cyst still remained distended. It was then anastomosed to the posterior wall of the fundus of the stomach. The operation was carried out transgastric. He recovered uneventfully and left the hospital on the 14th postoperative day. Six months later he was without symptoms, appeared wholly normal, and X-ray examination by barium meal revealed no gastric or jejunal fistulae.

SUMMARY

- 1. Traumatic (pseudocyst) cysts of the pancreas result from injury to the pancreas and its ductal system. The injury may be chemical, operative, or physical.
- 2. Traumatic cysts are best treated by internal drainage.
- 3. Two cases of traumatic pancreatic cysts are reported.



Multiple Electrolyte Solutions, Their Use in Parenteral Fluid Therapy

M. J. SWEENEY, M.D., EVANSVILLE, INDIANA

WHILE it is obviously unrealistic to expect that any one type of solution might be the answer to all parenteral fluid therapy problems, it does seem possible that one type of solution may be useful in many of the ordinary parenteral fluid therapy problems. The Multiple Electrolyte Solutions would appear to represent the most advanced development in the attempt to design an all purpose solution for the treatment of common fluid imbalances. These solutions represent an approach which will permit the clinician to treat his ordinary fluid balance problems with the reasonable assurance that he is doing a good job but without requiring him to be an accomplished body fluid biochemist or physiologist.

Development of Multiple Electrolyte Solutions^{1,2,3,4,5}: The Multiple Electrolyte Solutions grew out of the thinking of the pediatric group at the Massachusetts General Hospital, led by Doctors Allan Butler and Nathan Talbot. A number of their students in their own and other academic institutions also have contributed knowledge to the formulation and indications for the clinical use of these solutions.

Two observations contributed a great deal of initial stimulation to these investigators. First, they noted that the composition of the fluid retained in patients recovering from various types of fluid imbalances frequently bore little resemblance to the parenteral fluids being administered to the patients. Second, was their observation that the success of many parenteral fluid therapy regimes depended upon the functional integrity of the body homeostatic mechanisms.

The common denominator to all of these various systems seemed to be the provision of water and electrolytes in amounts which permitted the body homeostatic mechanisms to selectively

retain or reject water and electrolytes in accordance with body needs. A corollary of this denominator was the adequate function of the body homeostatic mechanisms. These homeostatic mechanisms are dependent for the most part on the functional integrity of the posterior pituitary, the anterior pituitary, adrenals, the parathyroids, and the kidney.

Rationale Behind Multiple Electrolyte Solutions^{1,2,3,4}: It seemed possible to these investigators that a solution might be devised that would be useful in a multitude of fluid imbalance states. The rationale for such a solution was that, when given in the amount satisfying the patient's water requirements, it would provide electrolytes simultaneously in amounts which:

1. Fell between the minimal needs and maximal tolerances for such electrolytes, and
2. Permitted the body homeostatic mechanisms to selectively retain or reject the electrolytes in accordance with body needs.

Standard of Reference For Administration of Multiple Electrolyte Solutions^{1,2,6,7}: In an attempt to simplify the dosage requirements of the solutions, another standard of reference was sought besides body weight, because of the great variation in water and electrolyte requirements per unit of body weight at different ages. These investigators demonstrated that water and electrolyte needs could be expressed on the basis of body surface area and that on the basis of body surface area, the needs were approximately the same in all age groups.

Body surface area as a standard of reference for water and electrolyte requirements is a concept that is new to most clinicians. Fortunately, nomograms are available that permit rapid determination of body surface area from a knowledge of height and weight. Once the physician has become familiar with the concept of body

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surface area as a standard of reference for determining the dosages of parenteral fluids, he can readily appreciate what a tremendous advantage this standard of reference has over body weight.

Water and Electrolyte Requirements Per Unit of Body Surface Area^{1,2,3,4,5,6,8} : It has been determined that the average maintenance requirement for water in all age groups is approximately 1,500 ml. per square meter of body surface area per day. It has likewise been determined that the minimum needs of both sodium and potassium are in the neighborhood of 10 mEq. per square meter of body surface area per day, that the maximum degree of tolerance for these electrolytes is in the neighborhood of 250 mEq. per square meter of body surface area per day, and that the average individual has a daily intake of sodium and potassium in the neighborhood of 50 to 70 mEq. per square meter of body surface area per day. These investigators also have demonstrated that the ketosis and tissue catabolism that accompanies fasting can be minimized, though not completely eliminated, by a carbohydrate intake between 60 and 75 gm. per square meter of body surface area per day.

Composition of Multiple Electrolyte Solutions: With this information at hand, it was possible to design a solution that theoretically, at least, would provide water and electrolytes in amounts that would fall between minimal needs and maximal tolerances and would permit the body to pick and choose in accordance with its needs, and carbohydrates in amounts that would minimize ketosis and tissue catabolism when administered in accordance with the recommended dosage. These investigators recognized that it probably never would be possible to design one solution that would be effective in all cases of fluid imbalances. However, they desired to make this solution useful in as many fluid imbalance states as possible.

Doctors Butler and Talbot formulated a solution which has the following composition.^{3,4}

Water 1,000 ml.			
Cations		Anions	
Sodium	40 mEq.	Lactate	20 mEq.
Potassium	35 mEq.	Chloride	40 mEq.
—	75 mEq.	Phosphate	15 mEq.
		—	75 mEq.
Carbohydrate	50 or 100 gm.		

Inspection of this solution reveals that if it

is given on the basis of 1,500 ml. per square meter of body surface area per day, the average maintenance amounts of water, sodium, and potassium will be provided. The solution can be made up as a 5% or 10% carbohydrate solution, and thus, will provide the minimum amounts of carbohydrate needed.

Acidosis: Inspection of the solution also reveals that there are 20 mEq. of the lactate ion in each liter of solution. The lactate ion is metabolized in the liver and replaced by bicarbonate ions so that in effect this solution contains 20 mEq. of bicarbonate ion per liter. This amount of lactate ion is equivalent to that contained in 120 ml. of a M/6 molar sodium-lactate solution. The patient who is in a state of acidosis and whose homeostatic mechanisms are normal will be able to selectively retain the bicarbonate ion for the relief of the acidotic state. The carbohydrate in the solution, in addition, provides the body with an energy source other than fat and tends to eliminate the ketone bodies which may play a very significant part in the production of an acidosis.

Alkalosis: On the other hand, the solution contains 40 mEq. of the chloride ion. Thus, the chloride ion content of the solution, when balanced by the sodium ion, is equivalent to about 2.3 gm. of sodium chloride per liter of solution. In states of metabolic alkalosis, the body homeostatic mechanisms can selectively retain the chloride ion in accordance with its needs. Also in connection with alkalosis, it generally is accepted that the vast majority of metabolic alkalotic states are associated with some degree of potassium deficiency and that it is extremely difficult to relieve this metabolic alkalosis by parenteral fluid administration without the administration of some potassium.

*Free Water*⁹: Further inspection of the solution reveals that it contains a total electrolyte content that is only about one-half the amount contained in the extracellular fluid or in such parenteral solutions as normal saline, or lactated Ringer's. Another way of stating this fact is that the solution contains more water per unit of electrolyte than does extra-cellular fluid. Most of the carbohydrate in the solution will be utilized soon after entering the body, so that in effect the Multiple Electrolyte Solution will provide 6.6 ml. of water per unit of electrolyte

which is two times the 3.3 ml. per unit of electrolyte present in the extracellular fluid or normal saline. Is this good, bad, or of no consequence? This extra or free water is beneficial for at least two reasons. First, about one-half of the water normally lost from the body is lost from the skin and lungs as insensible perspiration, and is accompanied by practically no electrolyte. Secondly, there is some evidence that the kidneys of the ill person cannot concentrate urine as well as those of the healthy person. This free water is thus available to satisfy both these needs.

Two other Multiple Electrolyte Solutions are worth mentioning.^{5,10} These were formulated using the same general approach as in the formulation of Butler's solution. The first is called a neonatal solution and is designed primarily for use in the newborn period—that is, for the first week to month of life. However, many surgeons also use this solution during the immediate post-operative period. It has the following composition:

Water 1,000 ml.			
Cations		Anions	
Sodium	25 mEq.	Chloride	22 mEq.
Potassium	20 mEq.	Lactate	23 mEq.
Magnesium	3 mEq.	Phosphate	3 mEq.
	48 mEq.		48 mEq.
Carbohydrate	50 or 100 gm.		

Inspection of this solution reveals that it contains about two-thirds the amount of electrolytes as Butler's solution. This decrease in electrolyte content takes into account the physiological immaturities of infant kidneys and in particular the inability of infant kidneys to concentrate to as high a level as more mature kidneys.

The second Multiple Electrolyte Solution has been formulated in accordance with the recommendations of Doctor Charles Lowe, of the Department of Pediatrics of the University of Buffalo School of Medicine.⁵ This solution has the following composition:

Water 1,000 ml.			
Cations		Anions	
Sodium	60 mEq.	Chloride	53 mEq.
Potassium	25 mEq.	Lactate	25 mEq.
Magnesium	5 mEq.	Phosphate	12 mEq.
	90 mEq.		90 mEq.
Carbohydrate	50 or 100 gm.		

Inspection of this solution reveals that it contains more sodium and chloride than Butler's solution. One liter contains the equivalent of 150 ml. of an M/6 molar sodium-lactate solution. It also contains the equivalent of approximately 3 gm. of sodium chloride.

Need for Initial Hydrating Solution^{8,10}: It has been recognized by these investigators that all of these solutions contain significant amounts of potassium and that potassium in these amounts should not be administered until the homeostatic mechanisms of the body, in particular the kidneys, are functioning at a level where the electrolyte content of the extracellular fluid can be controlled. It was recognized that these solutions would be used many times in patients whose kidney function was depressed because of dehydration. This depression is in reality a protective mechanism on the part of the body in its attempt to conserve body water by decreasing the amount of water lost in the urine. This renal depression is secondary to a fall in renal blood flow and glomerular filtration rate and usually is associated with a contracted extracellular fluid volume.

To raise the kidney function to a level where it can control the electrolyte content of the extracellular fluid, it is necessary to use some kind of a nonpotassium containing initial hydrating solution. A solution that serves this purpose very well is a one-third normal saline solution. This solution can be given initially, if necessary, at a rapid rate for the express purpose of expanding the extracellular fluid volume and elevating the depressed glomerular filtration rate.

The recommended dose of this initial hydrating solution is 360 ml. per square meter of body surface area in 45 minutes, corresponding to a dose of 12,000 ml. per 24 hours per square meter. This is a rate of 8 ml. per square meter of body surface per minute. The vast majority of individuals will void before the 45 minute interval has passed. Voiding is considered as an end point which indicates that the kidneys are functioning at a level where they will be able to control the electrolyte content of the extracellular fluid. If the patient has not voided at the end of 45 minutes, the dose of fluid is decreased to about 3,000 ml. per square meter of body surface area per day, a rate of 2 ml. per square meter per minute. If the patient does not

void within the next hour or so, it is highly probable that his kidney function is rather severely impaired and a complete review of the clinical situation should be made.

The patient whose kidney function is potentially normal but is temporarily depressed because of shock should be initially treated with appropriate agents such as blood, plasma, or dextran to combat shock. When the patient voids or is safely out of shock, the appropriate Multiple Electrolyte Solution can be started to supply the remainder of the 24 hour fluid intake.

Dose of Multiple Electrolyte Solutions^{3,4,5,8,10}: The dosage requirements of the Multiple Electrolyte Solutions have been correlated with three states of hydration. A dosage of 1,500 ml. per square meter of body surface area per day will satisfy maintenance requirements. A dosage of 2,400 ml. per square meter of body surface area per day will permit the correction of water and electrolyte deficits secondary to past deficits as well as furnish maintenance fluid requirements. A dosage level of 3,000 ml. per square meter of body surface area per day will permit the body of a severely dehydrated person to correct past deficits and to provide for current maintenance needs. It may be desirable, for example, in a severely dehydrated person to administer 3,000 ml. per square meter of body surface area per day for the first day, 2,400 ml. per square meter of body surface area on the second day, and 1,500 ml. per square meter of body surface area for as long thereafter as is necessary.

It should be recalled that it may take several days to make up specific deficits. This is particularly true of potassium deficits.

Replacement of Concurrent Losses^{10,11,12}: If the patient is sustaining losses concurrently with the parenteral fluid therapy by such routes as vomiting, diarrhea, gastric suction, duodenal suction, ileostomy, cecostomy drainage, or sweat, these losses should be replaced ml. for ml. by the appropriate replacement solutions.

Concurrent losses from gastric or duodenal suction, ileostomy, cecostomy, or colostomy, drainage usually can be measured with a fair degree of accuracy. Losses from vomiting, diarrhea, and sweat are more difficult to measure and usually must be estimated. The concurrent losses should be measured or estimated at inter-

vals such as every eight, 12, or 24 hours and then replaced in the next eight, 12, or 24 hour period. *Replacement of these concurrent losses is in addition to provision of maintenance amounts of water and electrolytes and correction of past deficits.*

The Multiple Electrolyte Solutions can be employed to replace concurrent losses from diarrhea and sweat. Losses from gastric suction should be replaced by the following solution:¹¹

Water 1,000 ml.	
Cations	Anions
Ammonium 70 mEq.	Chloride 150 mEq.
Sodium 63 mEq.	
Potassium 17 mEq.	
150 mEq.	150 mEq.
Carbohydrate	50 or 100 gm.

Losses of intestinal secretions by suction or drainage can be replaced by the following solution:¹²

Water 1,000 ml.	
Cations	Anions
Sodium 140 mEq.	*Acetate 47 mEq.
Potassium 10 mEq.	*Citrate 8 mEq.
Calcium 5 mEq.	Chloride 103 mEq.
Magnesium 3 mEq.	
158 mEq.	158 mEq.
Carbohydrate	50 or 100 gm.

*Converted to bicarbonate in the body.

Clinical Situations in Which Multiple Electrolyte Solutions Are Useful Include:

1. Dehydration, secondary to vomiting, diarrhea, etc.
2. Metabolic acidosis including diabetic acidosis (clinicians who prefer to use a non-carbohydrate containing solution in the first few hours of the treatment of diabetic acidosis can use noncarbohydrate containing Multiple Electrolyte Solutions).
3. Metabolic alkalosis, secondary to excessive ingestion of alkalis, vomiting, gastric suction, etc.
4. The immediate postoperative period when there is a distinct tendency to retain water and sodium. In these cases the appropriate Multiple Electrolyte Solution can be given in the maintenance dosage of 1,500 ml. per square meter of body surface area per day.
5. Any other situation where the patient is

unable to take water or electrolytes by mouth and in which the physician wishes to maintain normal fluid balance.

Clinical Situations in Which Multiple Electrolyte Solutions Should Not Be Routinely Used Include: The physician using Multiple Electrolyte Solutions should be cognizant of patients with fluid imbalances who cannot be treated adequately or safely with these solutions. Most of the time this recognition must be made on a clinical basis although confirmatory evidence may be obtained from laboratory data at a later time.

Severely burned patients should not receive Multiple Electrolyte Solutions during the first 24-48 hours, as they tend to slip into shock during this period. There also is a tendency for elevation of the blood potassium, secondary to breakdown of the burned body tissue. These patients also are losing large amounts of extracellular fluid from the surface of the burned area. Therefore, during this initial period they should receive such agents as blood, plasma, dextran, or solutions that have an electrolyte composition similar to the extracellular fluid. However, once these patients have become stabilized, they can be maintained quite well on Multiple Electrolyte Solutions.

The Multiple Electrolyte Solutions should not be used routinely in the following types of patients:

1. Patients with advanced renal disease such as chronic glomerulonephritis, severe arteriolar nephrosclerosis, or lower nephron nephrosis.
2. Patients with adrenal insufficiency.
3. The phosphate containing solutions should not be used in patients with hypoparathyroidism.
4. Patients with diabetes insipidus. These patients may receive maintenance amounts of electrolytes by means of the Multiple Electrolyte Solutions but the majority of their water requirements should be supplied by carbohydrate in water solutions.
5. Patients who have sustained marked losses of sodium chloride, such as in heat exhaustion. These patients usually need normal saline or even a 3% sodium chloride solution.
6. Other patients with extreme electrolyte de-

ficiencies who have normal homeostatic mechanisms but who need immediate replacement of part or all of the existing deficit. This type of patient, once the immediate critical needs are satisfied, can then be treated with the Multiple Electrolyte Solutions in the usual fashion.

SUMMARY

1. The Multiple Electrolyte Solutions represent a practical approach to the everyday clinical problems of parenteral fluid therapy.
2. The philosophy that provides the basis for the Multiple Electrolyte Solutions is the provision of water and electrolytes in amounts that will permit the homeostatic mechanisms of the body to selectively retain or reject water and electrolytes in accordance with body needs.
3. The homeostatic mechanisms whose functional integrity is involved include the anterior and posterior pituitary, the adrenals, the parathyroids, and kidneys.
4. Body surface area is the standard of reference used in determining the amount of solution to be administered.
5. Body surface area represents a very convenient standard of reference because water and electrolyte needs in all age groups are approximately the same per unit of body surface area.
6. Four solutions have been described:
 - a. An initial hydrating non-potassium containing solution to be used in situations in which potentially normally functioning kidneys are depressed because of dehydration.
 - b. A Multiple Electrolyte Solution for use during the neonatal period.
 - c. Butler's solution.
 - d. Lowe's solution.
7. The recommended dosage for the hydrating solution is 360 ml. per square meter in 45 minutes.
8. The recommended amounts of the Multiple Electrolyte Solution to be administered per day are:
 - a. 1,500 ml. per square meter of body surface area per day for maintenance requirements.
 - b. 2,400 ml. per square meter of body surface area per day for moderate dehydration.

- c. 3,000 ml. per square meter of body surface area per day for severe dehydration.
9. The clinical situations in which Multiple Electrolyte Solutions can be used and should not be used routinely have been defined.

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Ornithosis from turkeys

An outbreak of ornithosis among 250 employees of a Wisconsin turkey processing plant occurred during the interval between Aug. 15, 1956 and Dec. 28, 1956. Ten manifest cases, serologically confirmed, were observed during that period. It is likely that some cases escaped detection, and there is evidence that an indeterminate number of clinically inapparent infections occurred. The dates of onset of the respective cases were protracted at irregular intervals from Aug. 15 to Dec. 2, indicating that plant employees were subjected to multiple ex-

posure. There is substantial evidence, only lightly touched upon in this preliminary report, that the disease was transmitted from infected turkeys to man in the process of handling and by aerosol transmission. The possibility of a psittacotic source of infection should always be considered in cases exhibiting the syndrome of atypical pneumonia. Blood specimens taken in the acute and convalescent stages should be tested for complement fixation antibodies. This often follows follow-up procedures after the patient has made an apparent recovery. *Rex E. Graber, M.D. Ornithosis-Psittacosis in Wisconsin M. J. Aug. 1957.*

The Management of Infectious Hepatitis

RICHARD D. ECKHARDT, M.D., CHICAGO

Dr. Max Samter, Associate Professor of Medicine: Although much has been learned about the epidemiology of infectious hepatitis, the natural history of this disease is still uncertain. This explains why there is some debate about its therapeutic management.

We have asked Dr. Richard D. Eckhardt, the new Chief of Medicine at the West Side V. A. Hospital in Chicago, to talk to us about his unique experiences in the management of infectious hepatitis.

Dr. Richard D. Eckhardt: Thank you, Dr. Samter. I became part of this study in 1951, when an outbreak of infectious hepatitis affecting our Armed Forces in the Far East brought a large number of patients to the U.S. Army Hospital in Kyoto, Japan. This provided an excellent opportunity to study the effects of variable diets and physical activity on the course of the disease under controlled conditions.

Four of the eight wards in the hospital at Kyoto were set aside for this study. Men with infectious hepatitis were assigned to one of these wards, in a random fashion: a full-time statistician was a member of the team of investigators. On two of the wards the patients were served a "souped-up" diet containing 3000 calories, 150 grams of protein, choline and multivitamins. If the patients did not eat they were tube-fed. Needless to say, when the word got around that a tube would be passed, all but the most acutely ill men accepted the full diet. On the other two wards the patients were offered a standard well-balanced diet, but they were allowed to eat as little or as much as they desired. One-half of the patients in each group were kept at strict bed rest with bathroom privileges only once a day, and the other half were allowed virtual unrestricted activity on their own ward, ex-

cept for one hour of bed rest after each meal.

A total of 260 patients participated in the first study, 65 on each ward. The inflammatory phase of the illness was considered to be over when the total bilirubin was 1.5 mg.% or less and the 45 minute BSP retention was below five per cent. This average "recovery time" for the bed rest group was 27 days, and for the more active group 24 days. This difference, of course, is meaningless, except to precisely demonstrate that patients improved as promptly when permitted reasonable activity as they did when forced to stay in bed against their will. In the group forced to eat a high caloric, high protein diet, however, recovery was six days earlier than in the group who ate as they desired. The difference is statistically significant. It was observed in all groups that the higher the bilirubin level on admission, the longer the illness. Approximately five per cent of the men were too sick to eat adequately during the first several days after admission, and their average recovery time was 51 days. In contrast, in the small group of acutely ill patients who were tube-fed, the recovery time was only 33 days, although still well above the 25 day average for all patients.

A second study was then devised in an attempt to analyze the reasons for the apparent

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beneficial effect of diet. Groups were set up which were given: 1) 3000 calories, 2) 4000 calories, 3) 11 per cent protein, and 4) 19 per cent protein. There was no significant difference in recovery time between groups (1) and (2). Although the duration of acute illness was shortened for the patients eating abundant protein, the four-day advantage over those eating the normal protein diet was not of great clinical importance. Supplements of choline and multivitamins did not add benefit over that afforded by these diets per se.

On physical fitness tests patients who were allowed activity during their illness did better than those who had been confined to bed. Some of the patients were sent to a reconditioning center after discharge from the hospital. Training included seven mile marches over mountainous terrain with a heavy field pack. Although there were no clinical relapses, some had transitory rises in total bilirubin and increased BSP retention after one week of such reconditioning.

Approximately 40 per cent of the total patients were selected at random for a six to 18 month follow-up examination. Some of the men complained of listlessness and fatigue, but liver function tests, as a rule, showed neither progression nor reactivation of the disease.

The results of this study do not contradict the findings of Barker and Capps who studied an outbreak of infectious hepatitis during World War II. They stressed the importance of diet and of bed rest. They showed that acutely ill patients would get worse after strenuous exercise. We agree that if a patient with infectious hepatitis is very ill, he will want to and should stay in bed. None of our patients was forced to exercise against his will. On the other hand, when patients with hepatitis feel well enough to be out of bed, it is safe to permit them that privilege. Rest need not be rest in bed, except during the early phase of the disease.

Our studies leave little doubt that diet plays an important role in the rate of recovery. In particular, a high protein diet (e.g., 150 grams daily) with adequate calories is beneficial. Fat restriction is not important as was formerly believed. Our patients tolerated 170 to 180 grams of fat daily.

Vitamin supplements, choline, and antibiotics do not appear to affect the course of the illness.

If vitamin B₁₂ or steroids are of any benefit their action is possibly non-specific, e.g., due to an increase in appetite.

It may be questioned whether one should ever allow ad lib activity for the seriously ill patient. The question is rather theoretical since the seriously ill patient with high bilirubin levels has no desire to get out of bed.

While it has been said that the viral strain of our outbreak perhaps was less virulent than that reported in other studies, this argument is not supported by epidemiologic and clinical evidence.

Some critics suggested that our patients were studied late in the course of their illness; but the average bilirubin level was 8 to 9% mg. on admission; and the interval between onset of symptoms and hospitalization was about ten days; both values agree with those seen in civilian outbreaks.

The average age of our patients was 21 years, and I would agree that hepatitis is usually more severe in the older age group. We were unable to correlate the alcohol intake before admission with the severity of the illness. It is probably wise to advise against alcohol intake for at least three to six months after the acute illness.

Dr. Bessinger, Instructor in Medicine: Do you know of any difference in the incidence of symptoms expressed by the men with hepatitis treated by the different regimens after a year's time?

Dr. Eckhardt: There was no apparent difference in the symptoms in the groups that were kept at bed rest as compared to those in which limited activity was permitted during their illness. Some of the patients in each group expressed symptoms of so-called post-hepatic asthenia, which consists of ill-defined right upper quadrant abdominal discomfort, and of listlessness. This complaint, by the way, was probably consciously suppressed by many men who were anxious to return to action in Korea.

Dr. Michael West: Is there any value in using the level of the glutamic oxalacetic transaminase (G.O.T.) in deciding when to ambulate a patient?

Dr. Eckhardt: At the time of this study G.O.T.s were not available; I don't know if there is any value in using this test for deciding when to ambulate.

Dr. Buford Hall, Assistant Professor of Medicine: Do your remarks infer that you advocate tube feeding?

Dr. Eckhardt: Only if the patient is not eating. Often intravenous fluids will supplement a borderline oral intake for the few days before the patient regains his appetite. Usually explaining to a patient that he will get well sooner if he eats his food will be an adequate stimulus to eat.

Dr. Harry F. Dowling, Professor of Medicine and Head of the Department: Was the food not eaten measured daily?

Dr. Eckhardt: Only five to 10 per cent of the patients ate poorly in the ad lib diet group. These were the sickest patients. At the end of the first week almost all patients were eating a normal diet. Yes, a large staff of dietitians measured all foods not eaten at each meal, and translated the information into caloric, protein, and fat equivalents.

Dr. George Saxton, Associate Professor of Preventive Medicine: How often did you en-

counter persistent hepatomegaly in your follow-up group?

Dr. Eckhardt: Mild hepatomegaly was noted in 17 per cent of our patients; a control group showed only one-third of this incidence.

Dr. Ford K. Hick, Professor of Medicine: Is it not possible that some of the patients did not have infectious hepatitis?

Dr. Eckhardt: Yes, there were a few, such as those with infectious mononucleosis or serum hepatitis.

In conclusion, a word of caution might be in order. New medical information tends to be accepted with too much enthusiasm. As to exercise, for example: the harried physician may be besieged by the restless or busy patient to grant permission for early activity. Our studies were limited to a well-defined group, under highly specific circumstances. Our results might point to the possibility of a more liberal use of exercise, but it is too early to generalize our findings for other groups, under other conditions.

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The blood count

First, as regards the red cells, there are available determinations of hemoglobin, red count, hematocrit and red cell volume. The last may be dismissed as a routine clinical procedure. We are concerned with cost and accuracy in measuring the total number or volume of red cells. The red count is so much more inaccurate than the other two as hardly to merit further discussion. There is no place for a red count as a screening procedure to determine whether anemia is present or not. The red cell count should only be used in the intensive study of the type of anemia present in a diagnostic problem. Hemoglobin

and hemotocrit are approximately equal in accuracy, with the hematocrit holding a slight edge. Hemoglobin determinations are about one-third as expensive as hematocrits (except microhematocrits). In any case emphasis should be placed upon the fact that these three determine concentration, not total number or volume of red cells. In the overwhelming majority of cases, concentration, number and volume are so closely parallel as to make concentration a valid substitute for the other two. A major exception is immediately following hemorrhage or dehydration. *Matthew Block, M.D. Importance and Interpretation of Routine Blood Counts. Rocky Mountain M. J. Sept. 1957.*

Medical Management of Acute Withdrawal Symptoms in Juvenile Male and Female Heroin Addicts

A Preliminary Report

RAPHAEL LANDAU, M.D., NEW YORK CITY

THE abstinence syndrome following the withdrawal of heroin is well known¹. Its intensity is mild, moderate, marked, or severe and usually is gauged according to Vogel's evaluation². Two methods are being used to accomplish withdrawal: the abrupt deprivation of heroin without any supplementation of sedatives, or the abrupt withdrawal with simultaneous administration of sedatives and other narcotics such as chloral hydrate and methadone in decreasing doses. In the latter case, the abstinence syndrome is less marked, although fatigue, sleeplessness, and upper respiratory symptoms may linger for several weeks or months. Himmelsbach³ summarized the current situation as follows: "Since the mechanism of drug addiction remains obscure . . . all treatments based on theories of the mechanism of drug addiction have been failures." He also remarks ". . . that patients suffer less under rapid withdrawal than under any form of treatment tried . . ."

For the past three years, I have had the opportunity to observe a large number of juvenile heroin addicts. It is well known that these patients have poor nutritional conditions, overt signs of vitamin deficiency, menstrual abnormalities, amenorrhea, and decrease of sexual desire. In view of these observations, an attempt was made to treat some of them with supplementation of certain sex hormones and vitamins.

Nine patients were treated with a combination of sex hormones and vitamins. A marked and rapidly favorable effect on the abstinence syndrome was observed in all. In view of these results, it was thought worthwhile to describe the

methods employed and to report two representative cases in this preliminary communication.

Case No. 1: A 19 year old colored male, addicted to the use of intravenous heroin for at least three years, has had three hospital admissions; his last admission was on November 19, 1954. He left the hospital on therapeutic leave which lasted from June 13th to June 29th, 1955. Upon his return the patient developed acute and severe withdrawal symptoms. He received methadon 5 mg. every six hours and chloral hydrate at bedtime. The effect of this medication upon withdrawal symptoms was unsatisfactory; two days after the beginning of this therapy the patient suffered from acute and severe withdrawal symptoms (see Table 1) and 200 mg. testosterone propionate and a mixture containing 2 ml. crude liver extract and vitamin B complex* were administered intramuscularly, and 1,000 mg. vitamin C was injected intravenously. Seven minutes after the latter injection, relief of all acute withdrawal symptoms occurred and the severe abstinence syndrome disappeared (see Table 1). After the hormone-vitamin combination, the patient felt well throughout the day, slept well the subsequent night with the use of chloral hydrate and one dose of methadon 5 mg., and he was free of symptoms for the next eight days without receiving any further medication. Eight days after this treatment, late withdrawal symptoms set in and the patient could not sleep and felt sluggish. He retained his craving for heroin except for the first few hours after the

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*Thiamin chloride (100 mg.), Riboflavin (6 mg.),
Niacinamide (80 mg.), Pyridoxine hydrochloride (6
mg.) Panthenol (6 mg.), Vitamin B₁₂ (2 mg.).

TABLE 1

Two days after treatment with methadon 5 mg. q6 hours and 7½ gms. chloral hydrate, hours of sleep.

Seven minutes after hormone-vitamin injections was administered.

Mild

Yawning	++	0
Lacrimation	+	0
Rhinnorrhea	++	0
Perspiration	+	

Marked

Insomnia	++	0
Restlessness	++	0
Hyperpnea	not charted	

Elevation of Blood

Pressure not charted

Moderate

Gooseflesh	++	0
Dilated Pupils	+	0
Anorexia	++	0
Muscle tremor	+++	0

Severe

Emesis	++	0
Diarrhea		0
Weight loss—5 lbs in 24 hours—not charted		0

administration of the hormones and vitamins.

The effect of this therapy on patients who have late withdrawal symptoms, which can at times be present for several months after the abrupt withdrawal of heroin, is illustrated by the second case:

Case 2. An 18 year old colored female addicted to heroin sniffing for four years and to intravenous injection for at least one year was admitted to Riverside Hospital on 8/26/54. The mucous membranes of the nasal cavity were edematous and a perforation of the nasal septum was noted. Following withdrawal of heroin she was treated with methadon and chloral hydrate as described in Case 1. Six months after admission she left the hospital on a two months "therapeutic leave." When she returned she had acute withdrawal symptoms which gradually developed into late withdrawal symptoms—namely, generalized weakness, tiredness, and lack of interest. Objectively, upper respiratory symptoms such as cough rhinorrhea were observed. The described subjective and objective symptoms were still present three months after the second admission. At this time she was given 25 mg. testosterone propionate and 0.66 mg. crystalline estradiol

benzoate, and vitamin B ** intramuscularly. No immediate relief was noted. However, upper respiratory symptoms disappeared within three days, the patient felt well, and appetite improved. Her sexual desire returned to normal although it had been weakened during the previous three years of heroin addiction. Craving for heroin was unaffected. No recurrences of the late withdrawal symptoms were noted up to four weeks after the hormone-vitamin combination was administered.

Five additional male and one female patient with acute abstinence syndrome and one male patient with late withdrawal syndrome were treated as above described. Withdrawal symptoms were successfully treated in all patients.

The observations made on nine heroin addicts who were successfully treated with the hormone-vitamin combination for acute and late heroin abstinence syndrome are sufficiently encouraging to warrant further studies. The stimulating effect of male and female sex hormone upon metabolism, well documented in the medical literature, may account in part for the improvement of strength which was experienced by all patients treated. The effect of the high dose of vitamins in the treatment of withdrawal symptoms may well be related to the chronic malnutrition of such patients. The combination of the vitamin-hormone therapy seems to be essential for therapeutic results. Whether the amounts used are optimal or whether smaller doses would suffice, warrants further investigation. No statement shall be made at this time on the possible mode of action of this therapy upon the abstinence syndrome in heroin addicts, especially since so little is known about the chain of reactions leading to the withdrawal syndrome. This modality of treatment was tried also in four patients suffering from chronic alcoholism; the results obtained so far are encouraging. Abstinence from alcohol was observed in four patients from 26 days up to 16 months, respectively.

SUMMARY

1. An unusually rapid decrease of acute withdrawal symptoms was noted in heroin addicts

**Thiamin chloride (100 mg.), Riboflavin (6 mg.), Niacinamide (80 mg.), Pyridoxine hydrochloride (6 mg.), Panthenol (6 mg.), Vitamin B₁₂ (2 mg.).

following the administration of a hormone-vitamin combination.

2. Late withdrawal symptoms were checked by the treatment described.

3. When the vitamin-hormone combination was followed by the intravenous injection of vitamin C, craving for heroin was abolished for a period of one hour up to two days.

4. Preliminary studies indicate that this

modality of treatment may be of value also in the treatment of chronic alcoholism.

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Psychiatric Aid for the Obese

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Obesity may be defined as that condition of excess fatty tissue which accumulates when the energy intake exceeds the dissipation of that energy.

Considerable study and research have been devoted to the etiology of obesity and all lead eventually to the problem of appetite control. There is considerable evidence, both experimental and clinical, of the existence of an appetite controlling mechanism located in the hypothalamus. The factors, however, which influence this controlling mechanism are little understood. On the basis of what we know of the interrelations between the emotions and the hypothalamus¹, it is justifiable to postulate that emotional factors play a significant role in the etiology of obesity. It has been the purpose of this study to test this hypothesis in a group psychotherapeutic setting. We will indicate a method of approach to the problem of appetite control, as well as illustrate and elucidate some of the psychodynamic patterns present in the obese patient.

Whenever the physician is faced with the problem of obesity, his primary focus is the pa-

tient's insatiable desire to eat. We recognize at the outset that individuals vary in ability to utilize differing amounts and kinds of foods; but regardless of this, appetite control becomes the central problem. Obese patients frequently do not recognize this fact and tend to shift the responsibility onto some uncontrollable physiological mechanism or undiscovered metabolic disease. This attitude is understandable in patients who are frustrated in their conscious efforts to control their appetite while being sabotaged by strong oral demands over which they have little or no control.

A review of the medical literature reveals little proof of primary physiological disturbances which could account for obesity in the great majority of patients. Psychological factors which have been discussed can be summarized as follows:

- (1) The equation of food with love, security, satisfaction, and relaxation.
- (2) Pathological relationships with mother or mother-figures. It is part of the experience of every infant that relaxation and diminished tension follow feeding. Whenever the child becomes tense and fretful, recourse to the bottle tends to produce tranquillity. Because of this early conditioning, we can assume that the equation

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of food with security, satisfaction, and diminished tension is present in everyone.

How, then, does this normal psychological process become pathological and result in obesity?

In the absence of the ability to give love, some parents substitute food; in such family situations, the mother can give to the child only by means of food. But there are many cases in which the opposite occurs, wherein the mother may even withhold food. The child will then steal food or gorge himself because he has come to rely on food as the only way of gaining the security and satisfaction he so desperately needs. In still other instances, a more complicated pathological interpersonal atmosphere exists. The mother may be so overpossessive, in an effort to hold onto her one source of satisfaction, she treats the child as a prized personal possession. The child then grows up feeling helpless and lost without the constant guidance of the mother. Parental over-protection may result from conscious or unconscious rejection of the child and an attempt to compensate for it. Bruch² states that many patients who have suffered considerable rejection since infancy report a constant feeling of epigastric emptiness, which is related to the longing for love, care, and attention which they did not get. Again, the equation: Food = love.

If these factors are so important, why is it that obesity does not develop in childhood, but rather in adolescence or even later in adult life? The answer lies in the same mechanism that produces tuberculosis in adult life when the offending agent may have been present since childhood—i.e., precipitating factors. They must be crucial for the specific personality and emotional conflicts of each individual. For some, the event is the menarche, marriage, or the menopause. For others, it is the birth of a child or the death of a parent or parent-surrogate. The critical point in any of these instances is that the precipitating event is closely related to the central conflicts of the patient. For example, someone who is excessively dependent upon rejecting parental figures (particularly the mother) may not be able to adjust to the necessity of an independent, give-and-take marital relationship, or even less so to the role of motherhood, when a

child begins making demands which the woman cannot meet.

METHODOLOGY

In our project, a total of 70 patients participated in 10 groups. Social histories, psychological tests, and clinical observations, with verbatim recorded sessions, were all utilized in an effort to study individual patients. From the data gathered, formulations have been made on each patient under the following headings:

- (1) Interpersonal relationships
- (2) Self-concepts
- (3) Central conflicts
- (4) Symptomatology
- (5) Attitude toward weight problem
- (6) Changes in weight and emotional adjustment as indicated by improvement in the above

PSYCHODYNAMICS

The data gathered by the above method may be summarized as follows:

There was a mixture of neurotic patterns present, the most frequent being that of depression. Hopelessness, self-depreciation, inferiority, and especially guilt feelings were also frequent. The majority of patients demonstrated a syndrome of hostility, fear of rejection, fear of the loss of a love-object, and guilt. The frustrated need to be loved by a parent (usually mother) who had not the ability to give love and could give only food as a substitute was a typical central conflict for many of the patients. This was a frequent source of hostility in some, who were determined to obtain love from their mothers or die from the complications of obesity in the attempt. At times, this central conflict was focused on the husband, who became a mother-substitute for the patient. In some instances, there were pathological identifications with a basically rejecting mother and inability to give love to their own children, with resulting guilt. All of these patients showed a strong infantile dependency upon the mother. In some cases, this was denied or not recognized by the patient. Others were consciously aware of their dependency but felt trapped and totally unable to do anything about it. Many patients felt abandoned by the death of their mother and had been unable to deal with this loss except by compulsive eating.

In some patients, there was conflict about

their sexual role. They could not be feminine because they regarded women as unloved and depreciated figures. They could not be masculine for many reasons besides that of their biological constitution. They tried to take a position somewhere in between but were confused and frightened by their lack of an adequate concept of themselves. To a few patients, their obesity represented a protection against the dangers inherent in mature femininity. They were clinging to their obesity because, without it, they would be exposed to the sexual advances of the opposite sex, a situation too frightening for them to face.

Some patients were not consciously aware of any of their emotional conflicts, even though they demonstrated them quite clearly in the group. They felt frustrated and angry but had no idea why and were unaware of their tendency to eat more food when they felt this way. Some were not even aware of their anger, even though it was evident to the group.

PROCESS OF GROUP PSYCHOTHERAPY AND GROUP DYNAMICS

To go into a complete discussion of group psychotherapy would be far beyond the scope of this paper. We will describe briefly our technique and some of the group reactions and mechanisms.

As in most modern psychotherapy, whether group or individual, the conceptualizations of dynamic psychiatry were utilized. The patients were encouraged to discuss, frankly and in detail, their emotional feelings, attitudes, and behavior. The conflicts they were aware of were explored and discussed, with interpretations being made by other members of the group, as well as by the therapist. An opportunity to ventilate their hostility and frustrations was offered in an accepting and understanding atmosphere. There was strong group solidarity and loyalty from the beginning, but this did not mitigate against friendly competition with one another with regard to weight loss. At times, competition for the attention of the therapist was not so friendly, but these feelings also were discussed and interpreted. At no time did hostility or competition threaten to disintegrate the group. Frequently, one member would take up considerable time to ventilate her conflicts, and the others would listen empathetically and, at appropriate

occasions, would make helpful comments. Always, there was the implicit recognition that each had similar difficulties and that all would expect understanding when needed. The therapist encouraged each to explore her own problems.

As in all psychotherapy, it is of greater importance for the therapist to be able to be an empathetic listener than a verbal advice giver. At the same time, he must be able to give appropriately timed interpretations and correction of the misinterpretations of the patients who responded to their own problems rather than those of someone else. It is imperative for the therapist to be aware of the emotional stability of each member in the group so that a prepsychotic patient may not be precipitated into a state of panic or a psychotic episode by group pressure.

Characteristic of these patients were strong feelings of identity with and dependence upon the group. There was great reluctance to terminate each session, and even more to dissolution of the group. Also, the degree of empathy for one another's problems was unusual and was one of the most important reasons for the therapeutic effect of the group meetings. From their responses, it was soon evident that most of the patients unconsciously behaved toward the group as though it were a family situation, in which other members became sibling rivals and the therapist, Father or Mother. In this setting, the patients were able to work out their familial conflicts.

In September, 1952, when the project was first given publicity, more than 300 applications were received from women who were interested in this approach to weight control. Membership in the original group was limited to 18 women; later groups varied from 10 to 15 members. There were 138 sessions from September, 1952 to May, 1955. Each group met once a week for a one-and-one-half-hour period and for a total of eight to 16 sessions. Thirty-seven persons enrolled in more than one group, while 10 persons enrolled in three or more groups. Very few dropped out after registering for membership. Each patient was interviewed by a social worker prior to enrollment and was screened into the most appropriate group. All had tried to lose weight, had tried diets prescribed by their physicians, and had regained weight. All except those at the

last sessions of the project were seen by the agency's health education consulting physician. Each member had her M.D.'s permission to enter the group if she was currently or recently under medical care.

The project was set up as a service project. However, records were kept at each meeting throughout the various sessions, so that we now have these data available. The women chose and preferred the setting of the Y.W.C.A., which was, to them, a socially acceptable environment. In this way, they were less threatened by psychiatry than they would have been in a hospital clinic or other medical setting. As time went on, they became comfortable with the psychiatrist, and the group became a protecting as well as an activating device. In the screening interviews, each woman discussed with the social worker the history of her obesity and her attempts to deal with the problem; and those selected for participation in the group were women who could admit (intellectually, at least) their need for help with emotional problems and their willingness and desire to have such help. In the interview with the social worker, they were able to verbalize some problems in interpersonal relationships and to see these as related to their overeating. They understood that the project would deal with personal problems and that they would talk about these in the group. They were assured of a confidential relationship with the therapist and the social worker. To protect identities, only first names were used.

Eighteen members were admitted to the first group, started on September 23, 1952 and in it, some unforeseen results occurred: In two instances, a loss of 70 pounds over a period of one year; in another instance, no loss of weight during group sessions, but 30 pounds later; in several instances, a gain in weight.

In this group, the age spread was between 35 and 59 years, with 10 of the individuals over 50 years, a difficult age in which to penetrate defenses and reach more deeply into the personality. Five were 40 or above, and 3 were from 35 to 40, making an average of 48 years and 4 months. The average weight was $181\frac{3}{4}$ pounds at the beginning of these sessions; and at the end of the twelve weeks, it was 176 showing an average weight loss of $5\frac{3}{4}$ pounds. Of the total loss of $102\frac{1}{4}$ pounds, $78\frac{1}{2}$

were lost by 5 persons. Out of the group, the highest losses were as follows: In twelve weeks, one individual lost 23 pounds; another, $20\frac{1}{2}$; two lost 12 pounds each; and one lost 11. Nine lost a total of $26\frac{3}{4}$ pounds; two remained stationary; one gained 1 pound; and 1 gained 2.

In twelve sessions, it is unlikely that enough insight had been gained, or its application made, to actually change the behavior pattern in relation to eating; however, a beginning was made in this direction in at least five of the patients. The two in the group who gained weight became emotionally more disturbed during the process of therapy. In each case, this person was aware that eating seemed to relieve tension. Personal counseling assistance was indicated and advised for these patients.

Regarding the two who remained stationary in weight, and perhaps several others of the group, intellectual curiosity was the real motivation in entering the group, although these persons had rationalized that they wanted to learn how to lose weight. In many instances, one member was eager to help another, but at times, it was difficult to keep a few from monopolizing the time by their own intellectualization. In general, there was considerable interaction among members of the group. Nevertheless, during the session following the giving of the psychological TAT, much valuable material was brought out (Table 1). From this point on, the group moved forward in a combined effort to find emotional factors involved in their satisfaction with being overweight or being unable to maintain a weight loss. At the termination of the 12 weeks, a majority of the group felt they needed, and would like to continue with group therapy, which they did.

Let us follow through with two or three individuals briefly. M. B., as an example, had a weight loss of $66\frac{1}{2}$ pounds in 18 months. She struggled courageously with herself during the period of weight loss, often telling in an angry tone how furious she became to think she could not eat all the food she wanted and still lose weight. She suffered a great deal in admitting her own hostile feelings, particularly towards a younger sibling, who, as an invalid in the home, had curtailed her social life. This young woman did lose weight and is, at present (four years from the start of the project), in good health

TABLE 1 COMPARATIVE DATA--Group beginning January 1954

Pt.	Age	Education	Duration	Weight			Psychological Test	Present Adjustment
				Excess before Therapy	Change after Therapy	Follow up		
1	35	3 yrs. College	25 yrs.	29 lbs.	- 10 lbs.	+3 lbs. (preg-nant)	Positive change in personality & current functioning	Improved; able to overcome emotional block and get married.
2	49	7th Grade	37 yrs.	73¾	- 30¾	- 9¾	Negative change	Improvement in personal appearance but not making a better adjustment at work.
3	53	High School	11 yrs.	46½	- 6	..	No change	No contact.
4	39	Some College	10 yrs.	25	+ 15¾	+21	No change	Has gained in self-confidence and is able to handle a higher-salaried job.
5	32	8th Grade	9 yrs.	20	- 6½	-20	Positive change in personality & current functioning	Continues job; attends night school; better adjustment to family.
6	34	Some College	23 yrs.	44	0	..	Positive change in personality & current functioning	No contact.
7	48	College Grad.	38 yrs.	73½	- 10	+32	No change	Continues emotionally disturbed. Uses paranoid projection mechanism but is making minimal adjustment to family.
8	37	Some College	5 yrs.	30	- 4	..	Negative change	Gained less weight in third pregnancy. Still emotionally disturbed.
9	24	College Grad.	12 yrs.	42	- 12	- 4 (preg-nant)	Positive change	Improved in accepting feminine role and achieving marriage.
10	46	3 yrs. College	37 yrs.	10	0	+12¾	No change	More emotional stability after psychological separation from deceased mother. Advancement in profession.

and able to manage her family, as well as to hold a part-time job, and has maintained her weight loss.

D. A., an attractive young business woman, only 20 pounds overweight, needed psychological help but was fearful of seeking it in a psychiatrist's office. She was quite withdrawn and unrealistic about her clinging to the memory of her deceased soldier-husband and was reluctant to bring this problem out in the group. Her psychological test showed positive changes after 12 weeks of therapy, but it took her about two years to alter her behavior accordingly. She was able to face her problem and lose weight while maintaining her job, necessary for the support of herself and two children; and also, she has been able to make an adequate marriage, a real satisfaction. She realizes that she could not have made these successes without psychiatric help.

A third patient, S. A., was aware that she was considerably overweight at 230 pounds when she went to her doctor's office for physical examination. But she was greatly shocked when she heard that her blood pressure was nearly 200 and that she must lose weight or suffer dire consequences. As a result, she became so frightened she went to bed, resting all day every day until time to make her husband's dinner in the evening. In desperation, she sought relief in group psychotherapy. At present, after two years, the

patient is still the same number of pounds overweight, but her blood pressure is lower and she is able to get out, not only for social engagements but to work for six hours four times a week, and "feels like a different person."

These examples could be multiplied but will suffice to show that there were a number who were able to realize that their overweight was related to emotional problems and, through the support of the group therapy, were able to face such problems. Some who did not lose weight felt that they had gained a better emotional adjustment through their participation and are now able to be more active in life in spite of the extra pounds.

We agree with Finkler³ that "habitual excessive food consumption resulting from environmental influences and emotional disturbances is the most frequent etiologic factor in obesity". But we add that emotional disturbances are the more potent.

To quote again, Bruch,⁴ Associate Clinical Professor of Psychiatry at Columbia University College of Physicians and Surgeons, states: "In cases where obesity plays an important role in maintaining a precarious emotional stability, the best course of action for the physician may well be to leave the obesity alone." We agree that the obese person has strong and

TABLE 2
RANDOM SAMPLE

	Number Who Gained Weight	No Change	Number Who Lost Weight	Not Contacted	Total	Average Wt. Loss
6 Months After Therapy	3 (1 pregnant)	3	31*	0	37	10¼
4-Year Followup	13 (1 pregnant)	2	15 (1 pregnant)**	7	37	6¼

*This means 1½-59 lbs.

**This means 4-47 lbs.

deep oral dependent needs. When these needs are unsatisfied, as usually is the case, she becomes frustrated and hostile. Then, the added strain of weight reduction may cause a depression, mild or severe, or even a schizophrenic episode. Patience and reassurance are needed in treating such a patient in any doctor's office.

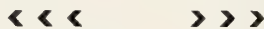
We think, then, that we have given you sufficient data to support our thesis that group psychotherapy is advantageous in the treatment of the obese woman. We should like to remind you that, if the patient does not lose weight (either with or without a medical regimen), it is not because of conscious intent but is the result of unconscious motivation, which is where psychotherapy can bring relief. We urge that

the internist and general practitioner deal with the obese woman with understanding and tolerance by recognizing her problem and realizing that he may have group psychotherapy to offer her as an adjunctive treatment.

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The authors are indebted to the Chicago YWCA and to Miss Maryan Brugger, Illinois Society for Mental Health, for their active participation and support of the project on which this paper is based.



Another myth

It is important that we put the record straight on several items which fall in the category of things which have been taken for granted without questioning for too long and as a result, have served rather effectively as authoritative inhibitors of medical progress. There is no convincing clinical, anatomic, or neuropathologic evidence of the popular concept, "mental deterioration." The myth of the deterioration of per-

sonality in the epileptic has been exploded. The myth of personality deterioration as the result of the use of narcotic drugs has been exploded. There is no evidence of an actual deteriorative process per se in schizophrenia although we do see a pattern of deteriorative behavior. We have also seen that under seemingly favorable therapeutic situations this pattern of deterioration has been reversed. V. Terrell Davis, M.D. *New Principles in the Management of Mental Illness*. J.M. Soc. New Jersey, Sept. 1957.



Embolectomy in Occlusion of the External Iliac Artery

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The prompt recognition of embolic occlusion in a major artery of an extremity, when followed soon enough by embolectomy, has been responsible for preservation of the limb and in some instances preservation of the life of the patient. However, satisfactory results do not always follow the procedure; unfavorable factors often make the likelihood of success either improbable or impossible despite early diagnosis and prompt care. The condition is encountered usually in patients of advanced age with impaired physical resources, but it occurs also in younger patients. The most common etiological factors are circulatory failure due to the prolonged effects of mitral stenosis, cardiac infarction, arteriosclerotic auricular fibrillation, or the sequelae of previous cerebral or peripheral vascular occlusion. This group of patients with unfavorable factors is unfortunate, but it is disconcerting that many poor results follow embolectomy because of failure to recognize the nature of the patient's complaint soon enough and to act more promptly in removing the obstructing embolus.

A study of femoral and iliac artery embolectomy by Klingensmith and Theis was reported from the Cook County Hospital in 1951. In the series of 19 femoral or iliac artery embolectomies performed during a five year period, only one

patient was discharged with a surviving limb; 15 died in the hospital, and three were discharged following amputations above the knee. The authors correctly point out that removal of the embolus, with restoration of the blood flow and immediate relief from symptoms should not be considered an adequate criterion for the success or failure of the surgical procedure. The final result reflects the nature of the patient's general condition, the disease responsible for the embolus, the pathologic condition of the vessel involved, the duration of occlusion of the lumen of the vessel, and the time lapse between recognition of the nature of the condition and the effort made to free the lumen of the blocking agent.

Mrs. M. R., age 69, while at home, was taken with severe pain in the left groin and thigh at 10:30 p.m. on April 6, 1955. She was seen by her family physician within an hour. Loss of sensation in the left lower extremity, inability to stand, and a progressive feeling of numbness and coldness were noted by the patient. Physical examination disclosed the left limb to be cyanotic and colder than the right, with loss in cutaneous sensation and voluntary movements in the muscles of the leg. No pulsations were noted in the femoral, popliteal, or dorsalis pedis arteries. There was cardiac arrhythmia with systolic and diastolic murmurs in the precor-

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dium. Blood pressure varied between 210 and 162 systolic and between 110 and 80 diastolic. Pulse was irregular and averaged about 80 beats that could be counted per minute. In the past history, varicose veins had been injected many years before, and there were several episodes of thrombophlebitis. Myocardial insufficiency with cardiac decompensation had recurred several times, but at present the patient appeared to be in a state of compensation. The liver was enlarged.

The patient was transferred to the hospital without delay and was brought to the operating room within two hours after the onset of pain.

TREATMENT

Preoperatively she was given morphine gr. 1/6 and atropine gr. 1/150 and intravenous 5% dextrose in water. For anesthesia procaine one percent was used locally. Incision was made parallel to the fibers of the external oblique aponeurosis. The latter was opened between parallel fibers exposing the internal oblique muscle and in turn, the transversalis fascia. This was opened directly over the external iliac artery, and exploration of the field was done. (Figure 1) On palpation a strong irregular pulsation was noted above the site of a hard object within the lumen of the vessel. The vessel was provisionally occluded, a linear incision was made directly over the embolus and the embolus, an irregularly shaped thrombus, was removed. A free flow of blood was noted when pressure on the vessel was temporarily removed. Heparin solution was placed in the wound and into the lumen of the opened vessel. Closure of the incision in the vessel was done with 00000 black silk by a continuous suture. There was complete hemostasis. Pulsations were now felt beyond the site of the suture and also in the femoral artery. The incisions in the fasciae and skin were closed with interrupted silk sutures.

Postoperatively, the patient was given 500 cc. of whole blood, Heparin 50 mg. every four hours

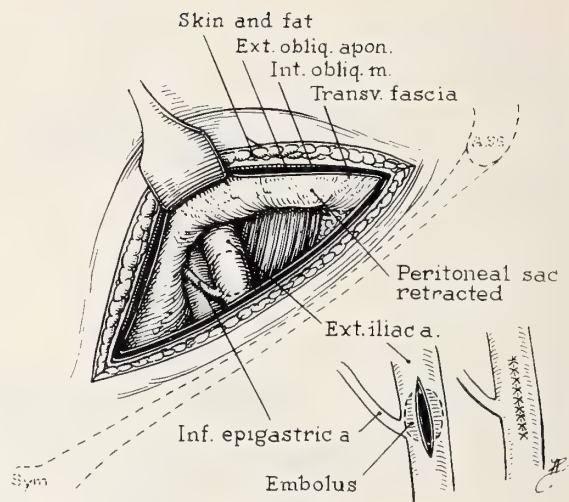


Figure 1

(intramuscular), papaverine one grain every four hours (subcutaneous), penicillin 400,000 units and streptomycin 1/2 gram every 12 hours (intramuscular). The patient was allowed to sit up with a back rest. Deep breathing exercises were instituted 10 times every hour, and exercise of all the free limbs was encouraged. The patient made an uneventful recovery and walked out of the hospital 12 days after surgery.

DISCUSSION

The occurrence of embolic disease is not rare, but it is not seen frequently by the general practitioner. Delay in recognition and in treatment of this condition, as was noted in the County Hospital series, is evidence that it is not considered a surgical emergency. Occlusion of a peripheral artery by an embolus is an emergency and should be treated as such. The purpose of this case report is to emphasize the importance of early diagnosis and prompt treatment. The reward may be a satisfactory result with preservation of a limb. The use of local anesthesia is of great value in the patient with serious cardiovascular disease.

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Pathology Conferences



The Hazards of Richter's Hernia

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Richter's hernia, one in which only a part of the caliber of the bowel has passed into a pouch, is a hazard to the life of a patient and unless reduced is fatal. The pouch of a Richter's hernia is commonly in the groin, but it can be behind the umbilicus or elsewhere. When an undiagnosed abdominal disorder is demonstrated by necropsy to be a strangulated loop of small bowel caught in such a pouch, those in attendance are impressed by the ease with which the strangulated loop of bowel is released and are moved profoundly by the realization that this simple procedure, had it been done in the living, would have saved a life.

A white male aged 59 years entered St. Luke's Hospital on January 11, 1956, moribund, having been referred by a physician who thought the patient had an incarcerated left inguinal hernia. He had had epigastric pain for several months. Three days before admission to the hospital he began to have bouts of vomiting, and for two days had had no food, gas or bowel movements. At the time of entry to the hospital he had gasping respirations, was cyanotic, his blood pressure was 70/? mms. Hg., his pulse was 120 and his respirations 20 per minute. The lungs had a few rales; the heart tones were poor in quality; the abdomen was soft, flat, not tender, and no masses were palpated, but bowel

sounds were absent. There were a small umbilical hernia with redness of the overlying skin; a right inguinal herniorrhaphy scar with a small recurrent hernia; and a large tender left inguinal hernia extending into the scrotum and not reducible. The tissues of the left groin were not red or unduly warm. The leukocytes of the blood were 14,900 per c.mm., 90 percent polynuclear. The alkali reserve of the blood was reduced to 8.5 vol. percent, the chlorides were 120 meq/l., and the non-protein nitrogen was 200 mgms. percent. Roentgen films of the abdomen had a pattern suggesting obstruction of the small bowel. Fecal fluids were aspirated from the upper levels of the small bowel. Despite supportive therapy the patient remained in shock and died seven hours after admission.

The essential portions of the anatomic diagnosis are:

- Umbilical pouch strangulation (Richter's hernia) of a loop of the jejunum;
- Marked distension and hyperemia of the proximal loops of the jejunum;
- Acute generalized fibrinous peritonitis;
- Old left inguinal and scrotal pouch with incarcerated herniated sigmoid colon;
- Etc.

The parietal and visceral peritoneum were covered by a thin fibrinous exudate. The upper loops of small bowel were markedly dilated, hyperemic, and at a level 235 cm. from the duo-

From the Henry Baird Favill Laboratory of St. Luke's Hospital Chicago, Illinois.

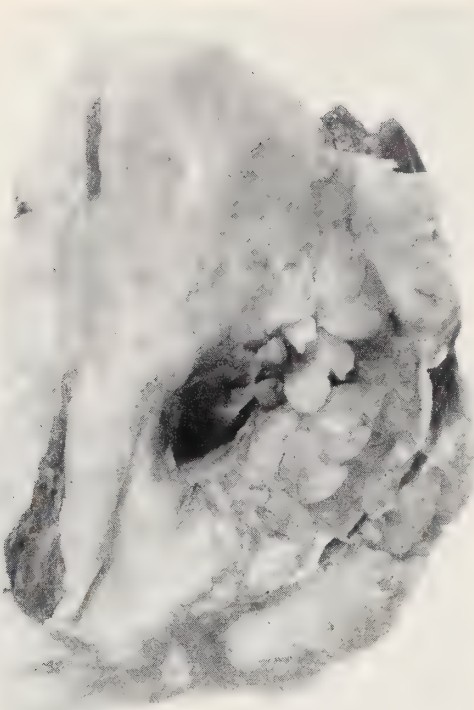


Figure 1. Photograph illustrating the hernial pouch beneath the umbilicus.

deno-jejunal flexure, 5 cm. (Figure 2) of the small bowel was strangulated in a hernial pouch behind the umbilicus 2.5 cm. deep and with an opening 1 cm. in diam. (Figure 1) The strangulated loop of small bowel was hemorrhagic, and its mesentery did not extend into the pouch. The entire sigmoid colon was in a large left inguinal and scrotal hernial pouch 4.5 cm. in diam. The sigmoid was a "U" shaped loop with arms, each 18 cm. in length. A band of fibrous tissue at the base of the pouch bound the loop to the lining. (Figure 3) The lower portion of the small bowel was collapsed. Excepting a terminal hypostatic bronchopneumonia the tissues of the trunk otherwise had no significant changes.

This brief pathological report emphasizes the hazards of an unreleased Richter's hernia of the small bowel. The herniation of the bowel occurs commonly in the inguinal region; but the one herein described was an umbilical pouch. The diagnosis of the disorder in this patient was confused by the associated irreducible hernia in

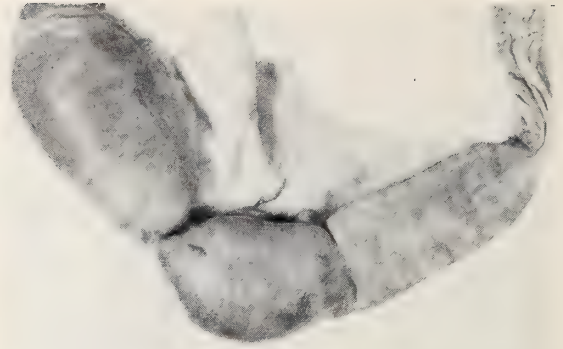


Figure 2. Photograph illustrating the loop of small bowel which had been strangulated in the umbilical hernial pouch. The bowel above the strangulation is dilated and below is collapsed.



Figure 3. Photograph illustrating the sigmoid colon tissues incarcerated in the left inguinal and scrotal hernial pouch. The left testis is at the lower edge of the photograph.

the left inguinal region. This, clinically, was considered the site of obstruction. The necropsy demonstrated that such was not the case, but instead, an unsuspected Richter's hernia of the umbilicus.

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AMA house of delegates acts on numerous subjects

The House of Delegates of the American Medical Association, which met in conjunction with the 11th Clinical Meeting in Philadelphia, December 3-6, acted on several issues of importance to medicine. Among the actions taken were:

(1) Fluoridation of public water supplies was held to be a safe and practical method of reducing the incidence of dental caries during childhood.

(2) Previous interpretations of the Principles of Medical Ethics concerning the free choice of physicians in relation to contract practice were reaffirmed.

(3) The current attitude and method of operation of the United Mine Workers of America Welfare and Retirement Fund was condemned "as tending to lower the quality and availability of medical and hospital care of its beneficiaries."

(4) The Forand Bill, pending in Congress and providing medical, dental and hospitalization care for social security recipients, was condemned as undesirable legislation.

(5) Ten decisions were made on recommendations on organization of the AMA, contained in the Heller Report.

(6) Attention was called to "certain inadequacies and confusions" in the distribution of Asian influenza vaccine.

FLUORIDATION

Fluoridation of water proved to be the most

controversial issue. The House approved a joint report of the Council on Drugs and the Council on Foods and Nutrition which endorsed the program. The report contained the conclusion: "Fluoridation of public water supplies should be regarded as a prophylactic measure for reducing tooth decay at the community level and is applicable where the water supply contains less than the equivalent of 1 ppm of fluorine."

The report also stated that dental fluorosis associated with this level of fluoridation is minimal and that the importance of mottling is outweighed by the caries-inhibiting effect of the fluoride.

FREE CHOICE

Acting on the issue of free choice in relation to contract practice, the House passed a resolution which reaffirmed approval of previous interpretations of the Principles of Medical Ethics by the Association's Judicial Council and directed that they be called to the attention of all constituent associations and component societies. One Council opinion, issued in 1927 and reaffirmed in Philadelphia, stated that the contract practice of medicine would be determined to be unethical if "a reasonable degree of free choice of physician is denied those cared for in a community where other competent physicians are readily available."

The resolution also cited a Council opinion, published in the October 19, 1957, issue of the Journal of the AMA, which stated that the

basic ethical concepts in both the 1955 and 1957 editions of the Principles of Medical Ethics are identical in spite of changes in format and wording. This opinion added that "no opinion or report of the Council interpreting these basic principles which were in effect at the time of the revision has been rescinded by the adoption of the 1957 principles."

The 1957 Council also pointed out that "there are many conditions under which contract practice is not only legitimate and ethical, but in fact the only way in which competent medical service can be provided." Judgment of whether or not a contract is ethical, the report said, must be based on the form and terms of the contract as well as the circumstances under which it is made.

UNITED MINE WORKERS

In another action related to the issue of free choice, the House adopted a resolution condemning the operation of the United Mine Workers of America Welfare and Retirement Fund as detrimental to beneficiaries. The resolution also called for a broad educational program to inform the general public, including the beneficiaries of the Fund, concerning the benefits to be derived from preservation of the American right to freedom of choice of physicians and hospitals as well as observance of the "Guides to Relationships Between State and County Medical Societies and the UMWA Welfare and Retirement Fund" which were adopted by the House last June.

HELLER REPORT

Acting on the report of the Committee to Study the Heller Report on Organization of the American Medical Association, the House reached the following decisions on 10 specific recommendations:

(1) The office of vice president will be continued as an elective office.

(2) The offices of secretary and treasurer will be combined into one office to be known as secretary treasurer. That officer will be selected by the Board of Trustees from one of its number.

(3) The duties of the secretary treasurer will be separated from those of the executive vice president.

(4) The office of general manager will be discontinued, and the new office of executive vice president will be established. The latter, ap-

pointed by the Board of Trustees, will be the chief staff executive of the Association.

(5) The Council on Medical Education and Hospitals and the Council on Medical Service will continue as standing committees of the House of Delegates, but their administrative direction will be vested in the executive vice president.

(6) The voting members of the Board of Trustees will be limited to 11—the nine elected trustees, the president and the president-elect. The vice president and the speaker and vice speaker of the House of Delegates will attend all board meetings, including executive sessions, with the right of discussion but without the right to vote.

(7) The House disapproved the proposal to elect the trustees from each of nine physician population regions.

(8) The office of assistant secretary will be discontinued and a new office of assistant executive vice president will be established.

(9) The Committee on Federal Medical Services will be retained as a committee of the Council on Medical Service and will not become a part of the Council on National Defense.

(10) The speaker of the House will appoint a joint and continuing committee of six members, three from the Board of Trustees and three from the House, to redefine the central concept of AMA objectives and basic programs, consider the placing of greater emphasis on scientific activities, take the lead in creating more cohesion among national medical societies and study socio-economic problems.

The accepted recommendations were referred to the Council on Constitution and By-laws with a request to draft appropriate amendments for consideration by the House at the 1958 annual meeting in San Francisco.

FORAND BILL

The House condemned the Forand Bill as undesirable legislation, approved the firm position taken in opposition to it and expressed satisfaction that the Board of Trustees has appointed a special task force which is taking action to defeat the bill. In a related action, giving strong approval to Dr. Allman's address at the opening session, the House adopted a statement which said:

"It is particularly timely that our president

has so forcefully sounded the clarion call to the entire profession for emergency action. With complete unity, definition and singleness of purpose, closing of ranks with all age groups and elements of our reorganization we must at this time stand and be counted. Thus we can exert the physician's influence in every possible direction against invasion of our basic American liberties in the form of proposed legislation alleged to compulsorily insure one segment of the population against health hazards at the expense of all."

HOSPITAL HEALTH PROGRAMS

A set of "Guiding Principles for an Occupational Health Program in a Hospital Employee Group" was approved by the House. The guides were developed by a joint committee of the American Medical Association and the American Hospital Association and already had been formally approved by the AHA. They include these statements:

"Employees in hospitals are entitled to the same benefits in health maintenance and protection as are industrial employees. Therefore, programs of health services in hospitals should use the techniques of preventive medicine which have been found by experience in industry to approach constructively the health requirements of employees.

"It is essential that employee health programs in hospitals, as in industry, be established as separate functions with independent facilities and personnel. The fact that hospitals are engaged in the care of the sick as their primary function does not alter the necessary organizational plan for an effective occupational health program."

ASIAN FLU VACCINE

The House considered three resolutions dealing with the Asian influenza immunization program and then adopted a substitute resolution calling attention to "certain inadequacies and confusions in the distribution of vaccines" and directing the Board of Trustees to seek conferences through existing committees "with a view to establishing a code of practices regulating the future distribution of important therapeutic products, so that the best interest of all the people may be served." The resolution pointed out that the American Medical Association already has a joint committee with the American Pharmaceutical Association and the National Asso-

ciation of Retail Druggists, in addition to a liaison committee with the Drug Manufacturers Association.

PHYSICAL IMPAIRMENT

The House accepted a 115-page "Guide to the Evaluation of Permanent Impairment of the Extremities and Back" which was developed by the Committee on Medical Rating of Physical Impairment as the first in a projected series of guides. The guides are expected to be of particular help to physicians in determining impairment under the new disability benefits program of the Social Security Act.

MISCELLANEOUS ACTIONS

Among a wide variety of other actions, the House also:

Directed that a new committee be established in the Council on Industrial Health to study neurological disorders in industry;

Noted with approval the establishment of the American Medical Research Foundation, which will initiate and encourage necessary medical research and correlate and disseminate the results of studies already under way;

Decided that informational materials which are sent to AMA delegates should also be sent to all alternate delegates;

Affirmed that it is within the limits of ethical propriety for physicians to join as partnerships, associations or other lawful groups provided that the ownership and management of the affairs thereof remain in the hands of licensed physicians;

Instructed that the appropriate committee or council should engage in conferences with third parties to develop general principles and policies which may be applied to the relationship between third parties and members of the medical profession;

Urged state medical society committees on aging and insurance to make continuing studies of pre-retirement financing of health insurance for retired persons;

Endorsed a suggestion that the Committee on Federal Medical Services sponsor a national conference on veterans' medical care during 1958;

Asked the Board of Trustees to study the feasibility of having the Association finance a thorough investigation of the Social Security system by a qualified private agency;

Suggested that physicians and their friends

make a vigorous effort to obtain Congressional enactment of the Jenkins-Keogh Bills;

Approved the "Suggested Guides to Relationships Between Medical Societies and Voluntary Health Agencies;"

Strongly recommended that completely adequate and competent medical department be established in the Civil Aeronautics Administration directly responsible to the CAA Administrator.

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To consider the foreign medical graduate

An important organization, the Educational Council for Foreign Medical Graduates, has recently opened its offices in the Orrington Hotel, Evanston, Illinois. Dr. Dean F. Smiley, Chicago, former secretary of the Association of American Medical Colleges is the executive director and Dr. J. Murray Kinsman, dean of the University of Louisville School of Medicine, is the president of the board.

The council, incorporated in the State of Illinois, is administered by a 10 member board of trustees, two each from the American Medical Association, the Association of American Medical Colleges, the American Hospital Association, and the Federation of State Medical Boards of the U.S.; and two persons representing the public at large, one named by the U.S. Department of Defense and the other by the U.S. Department of Health, Education, and Welfare. For the next two years the council will be supported by the four sponsoring agencies, the Kellogg Foundation, and the Rockefeller Foundation.

This independent group through a three-way screening process will help maintain the present high medical standards in our country. Foreign medical graduates, while still in their own country, will be furnished information on our qualifications and how to obtain certification here.

Tentative plans call for the first American Medical Qualification Examination for foreign medical graduates in this country to be held in February or March 1958. This is a vital measure because there are more than 6,000 foreign trained physicians in this country on temporary visas, and another group of approximately 1,000 foreign trained physicians who enter each year as immigrants or American citizens returning after completing their medical education abroad.

Illinois makes additional contribution to AMEF

Dr. Harold M. Camp, secretary of the Illinois State Medical Society, notified the AMA House of Delegates meeting in Philadelphia that an additional contribution of over \$10,000 will be made by the ISMS this year to the American Medical Education Foundation.

The Society had made a contribution of \$170,450 at the June meeting of the House. The total for the year will be over \$180,000, making Illinois by far the largest contributor to the Foundation.

Four state medical societies announced contributions at the Philadelphia meeting: California, \$143,043; Utah, \$10,390; New Jersey, \$10,000, and Arizona, \$8,040.

Dr. J. Mather Pfeifferberger of Alton, Ill., presented a check for \$1,000 from the Interstate Post Graduate Medical Association of North America.

Since the inception of the Foundation in 1951, contributions from physicians and laymen have totaled more than \$6 millions. Of this, more than one million dollars came from the Illinois State Medical Society.

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President of AMA calls for fight on Forand Bill

"More freedom, not less, in America and in the medical profession" was asked by Dr. David B. Allman of Atlantic City, president of the American Medical Association, at the opening session of the AMA House of Delegates in Philadelphia, December 3.

Dr. Allman lashed out against pending federal legislation which would provide hospitalization and medical benefits under the Social Security program. He condemned the Forand Bill, now before the House of Representatives, as being "socialized medicine" and called upon physicians to wage a determined fight against its adoption.

"If passed," Dr. Allman said, "the federal government would collect Social Security taxes on a compulsory basis from almost the entire working population and use those taxes to reimburse hospitals and physicians for services rendered to all persons—some 12 to 13 million—eligible to receive old age and survivors benefits.

"This is socialized medicine. This is national

compulsory health insurance all over again."

Dr. Allman said that the provisions of this bill "are the beginning of the end of the private practice of medicine" in this country. He added:

"It is the death knell for the young and growing voluntary health insurance industry; it is a serious threat to the wellbeing and local autonomy of the voluntary hospital at the community level; it is socialism under the auspices of the federal government."

Addressing himself to the delegates, Dr. Allman said:

"My plea to you is to embark upon a local-action campaign to enlist the full support of your community against this legislation.

"As in our fight against national compulsory health insurance, the stakes are high for the American people, for the medical profession, for the hospitals, and for all allied health groups.

"We must, however, keep in mind that in our struggle to preserve the private practice of medicine we are fighting for the basic freedoms which have enabled democracy to thrive and our nation to prosper."

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Hero of Louisiana hurricane named AMA "GP of year"

Dr. Cecil W. Clark, a 33-year-old country physician, who was Cameron's "big man" when Hurricane Audrey roared into southwest Louisiana last June 27, taking a toll of more than 500 lives, was selected by the American Medical Association as the nation's most outstanding family physician.

He was presented before the AMA House of Delegates as "General Practitioner of the Year" by Dr. Edwin S. Hamilton of Kankakee, Ill., chairman of the AMA Board of Trustees.

Dr. E. Vincent Askey, Los Angeles, speaker of the House, said:

"In a way, the career of Dr. Clark is the story of many who were called into their profession as if by some mystic sign and who served it with their whole souls. A study of Dr. Clark's background indicates clearly that from the first his practice had an air of dedication."

Dr. Clark, the only physician in Cameron, when the hurricane struck, waded through shoulder-deep waters to render aid to the injured. He kept at his labors for three days and nights, most of the time under the impression



Dr. Edwin S. Hamilton (left) of Kankakee, Ill., chairman of the AMA Board of Trustees, presents Dr. Cecil W. Clark of Cameron, La., AMA "General Practitioner of the Year," to the AMA House of Delegates in Philadelphia.

that his wife and five children had been killed. It was not until the second day that he learned his wife and two children had been spared. He also lost his entire physical possessions, including a new residence and a 12-bed hospital and clinic.

In the face of these losses, he decided to rebuild in Cameron and already has established a temporary hospital.

The selection of Dr. Clark for medicine's high honor was regarded as a foregone conclusion when his name was submitted. He is a shining example of a dedicated family physician.

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Hospitalization for the retired

The American Hospital Association recently announced that "it believes that the Forand Bill (H.R. 9467) is not a suitable solution to the problem of financing the hospital needs of the aged."

In explanation of its objections to the Forand Bill, the Association maintained:

(1) Eligibility of aged beneficiaries is based on attainment of prescribed ages without regard to their employment status and thus invites a progressive reduction of these age levels with the ultimate possibility of a total program of government-financed hospital care.

(2) The bill makes possible the provision of care for other than health reasons.

(3) The bill provides inadequate safeguards

against governmental interference with the actual operation of hospitals. Such interferences would most likely hamper evolution of patterns of hospital service to the detriment of patient care.

The Association said that it believes that although "federal legislation will be necessary to solve the problem (faced by retired aged people in financing their hospital care) satisfactorily," it has "serious misgivings with respect to the use of compulsory health insurance for financing hospital care even for the retired aged."

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There is no substitute for experience

An immigrant expresses our objections to state medicine in the *Voice of the People*, Chicago Tribune, for December 3:

"I advise Dora L. Campbell, whose letter appeared today, to read 'Compulsory Medical Care and the Welfare State' by Melchior Palyi. This little book will enlighten her about socialized medicine.

"May I add that before I came to this country my monthly paycheck showed a deduction for health insurance equal to the fees for six or seven consultations. In spite of this I preferred to go as a private patient to the physician or dentist of my choice, which means I paid the fees myself.

"I did this also because I did not like to sit in a waiting room for three or four hours to see a doctor for a few minutes.

"Nor did I care to beg permission from some official for every X-ray and test the doctor felt was needed.

"Nor did I like the idea of every diagnosis being entered in government files accessible to I don't know how many employees.

"Knowing what is available to Americans now, it doesn't seem to me that they would ever be satisfied with what could be given them under such circumstances as the above. G.E.R."

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Rules for authors

Manuscripts should be submitted in duplicate to the *Illinois Medical Journal*, an original copy and one carbon, and typed with double spacing. Maximum length of an article should not exceed 4,500 words; briefer if possible.

Footnotes and references should conform to the style of the *Quarterly Cumulative Index Medicus* published by the American Medical Association. This requires in the order given: Name of author; title of article; name of periodical; with volume, page, month — day of month if weekly — and year. The *Illinois Medical Journal* does not assume responsibility for the accuracy of references used with scientific articles.

The first page should list the title, the name of the author (or authors), degrees, and any institutional or other credits. The title of the article should be as short as possible. Pages should be numbered consecutively. Tables are to be typed, numbered, and accompanied by a brief descriptive title. Make drawings and charts in black ink. Glossy photographs may be submitted. Number illustrations consecutively, indicating them in the text. Number, indicate the top, and place the author's name to the back of each illustration. Number legends and type them following the main body of the manuscript.

Order blanks for reprints will be sent to the author at the time of publication.

Address manuscripts to Harold M. Camp, M.D., Editor of the *Illinois Medical Journal*, 224 S. Main Street, Monmouth, Illinois.

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CORRESPONDENCE



Clinics for crippled children listed for February

Twenty one clinics for Illinois' physically handicapped children have been scheduled for February by the University of Illinois, Division of Services for Crippled Children. The Division will count 16 general clinics providing diagnostic orthopedic, pediatric, speech and hearing examination along with medical social and nursing service. There will be 2 special clinics for children with cardiac conditions, 2 for children with rheumatic fever and 1 for cerebral palsied children.

Clinics are held by the Division in cooperation with local medical and health organizations, both public and private. Clinicians are selected among private physicians who are certified Board members. Any private physician may refer to or bring to a convenient clinic any child or children for whom he may want examination or may want to receive consultative services.

February 5 — Alton (Rheumatic Fever), Alton Memorial Hospital

February 5 — Hinsdale, Hinsdale Sanitarium

February 7 — Chicago Heights (Cardiac) St. James Hospital

February 11 — East St. Louis, Christian Welfare Hospital

February 11 — Peoria, Children's Hospital (St. Francis)

February 11 — Vandalia, American Legion Home

February 13 — Springfield, St. John's Hospital

February 14 — Evanston, St. Francis Hospital

February 18 — Belleville, St. Elizabeth's Hospital

February 19 — Chicago Heights General, St. James Hospital

February 20 — Elmhurst (Cardiac), Memorial of DuPage Co.

February 20 — Litchfield, Madison Park School

February 20 — Macomb, St. Francis Hospital

February 20 — Rockford, St. Anthony's Hospital

February 25 — Effingham (Rheumatic Fever), St. Anthony Hospital

February 25 — Peoria, Children's Hospital (St. Francis)

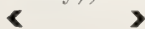
February 26 — Elgin, Sherman Hospital

February 26 — Metropolis, Presbyterian Parish House

February 26 — Springfield (Cerebral Palsy), Memorial Hospital

February 27 — Anna, County Hospital District

February 27 — Bloomington A.M. (General), P.M. (Cerebral Palsy), St. Joseph's Hospital



Some 29 million Americans under 40 years of age are unprotected against polio because they have not received their Salk vaccine inoculations. Be sure *you* have *your* three shots *now*!

Academy of General Practice to meet in Dallas in March

The 10th annual scientific assembly of the American Academy of General Practice will be held in the Memorial Auditorium, Dallas, March 24-27.

Thirty-five medical experts will discuss subjects ranging from teen-age problems to old-age problems, and from heart disease and ulcers to eye ailments, fractures and the hypnotized patient. More than 90 scientific and 300 technical exhibits will supplement the scientific lecture program.

The Academy's policy-making Congress of Delegates will convene in the Statler Hilton Hotel on March 22. On March 26, following induction ceremonies for Dr. Holland T. Jackson, Ft. Worth, Tex., as president, more than 3,000 guests will attend a reception and dance honoring Dr. Malcom E. Phelps, El Reno, Okla., president.

More than 8000 physicians, residents, interns and guests are expected to attend.

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AMA legal conference

Legal problems facing individual physicians and organized medicine will be discussed at the second meeting of state and county medical society executive secretaries and attorneys at the Drake Hotel, Chicago, May 9-10. The AMA law department, which will sponsor the meeting, asks medical societies to send in suggestions for subjects to be discussed.

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"March of Medicine" program to be televised January 23

The work of American physicians in remote regions of the world, where native populations are largely dependent upon our doctors and medicine for their health, is the television story to be aired coast-to-coast, January 23. Entitled "MD International," the hour-long show will be presented in color and black and white at 9 p.m., CST, over the NBC-TV network.

The telecast will report on thoracic and general surgery, orthopedics, ophthalmology, and general medicine in such far-flung areas as Korea, Hong Kong, Burma, Sarawak, Nepal, India, Lebanon, and Ethiopia. More than 34,000 miles were covered in the filming.

AMA rural Health conference to be held March 6-8

Changing patterns in nutrition, health costs, medical care, dental health, and safety will be discussed at the 13th National Conference on Rural Health in the Hotel Heidelberg, Jackson, Miss., March 6-8. The conference will be sponsored by the AMA Council on Rural Health in co-operation with southern state medical associations and farm, educational and allied organizations.

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Environmental hygiene course

The Institute of Industrial Health, University of Cincinnati, is offering graduate training for professional personnel, other than physicians, in the field of environmental hygiene. The three-year course leads to the degree of Doctor of Science in Industrial Health, and the one-year course to a Master of Science degree.

Inquiries should be addressed to the secretary, Institute of Industrial Health, College of Medicine, Eden and Bethesda Avenues, Cincinnati 19.

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Diseases of chest course

The American College of Chest Physicians will sponsor the 11th annual postgraduate course on disease of the chest in the Warwick Hotel, Philadelphia, March 3-7. Recent advances in the diagnosis and treatment of chest diseases, medical and surgical, will be presented. The tuition fee is \$75, including round table luncheons.

Information may be had by writing the executive director, American College of Chest Physicians, 112 East Chestnut Street, Chicago 11.

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Mediclinics refresher course

The third annual postgraduate refresher course of Mediclinics will be held in Fort Lauderdale, Fla., March 2-12. The American Academy of General Practice has certified this course for 32 hours of formal postgraduate study, category 1, for academy members in attendance. The course consists of 32 hours of lectures and panels. Registration will be limited to 300. Reservations should be made well in advance. The tuition fee is \$50, with each luncheon \$2.50 additional.

A program and additional details may be had by writing to Mediclinics of Minnesota, 601 Medical Arts Building, Minneapolis 2.

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Internal medicine meeting

The International Society of Internal Medicine will hold its Fifth Congress in Philadelphia, April 24-26. This is the first time that the Society, which has 3,400 members in 34 countries, including 1,900 American physicians, will meet in the United States.

Among the program participants will be Dr. Lowell T. Coggeshall of Chicago, president of the American Cancer Society, and Dr. Walter L. Palmer, professor of medicine, University of Chicago.

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AMA industrial health conference in Milwaukee

High standards of health in industry will be considered at the 18th annual Congress on Industrial Health, to be held at the Schroeder Hotel, Milwaukee, January 27-29, under the sponsorship of the AMA's Council on Industrial Health.

The program will include a panel on immunization in industry, and technical sessions on general aspects of disability evaluation, industrial dermatitis, and low back pain.

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A. C. of P. names Illinois physicians as fellows

The American College of Physicians named the following Illinois physicians as fellows: Dr. Irving Mack, Chicago, and Dr. Ruth Bernice Balkin, Highland Park.

The following were named associates: Drs. William Dalessandro, Bernard Eisenstein, Jay J. Gold, James J. Hines, and Robert G. Page, Chicago; Stanley E. Goldstein, Decatur; Irvin LeRoy Schweitzer, Freeport; Frank B. Norbury, Jacksonville; Morris Binder, Morton Grove; Bertram G. Nelson, Oak Park; Lawrence J. Knox, Olney; John H. Houseworth, Urbana; John J. Zannini, Waukegan.

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AMA plans new exhibits

The AMA has a new exhibit entitled "How

to Breathe" ready for booking. It presents a three dimensional model of the organs involved in breathing. Other features include actual preserved human lungs and a unit to demonstrate the mechanism of breathing.

Other exhibits planned for 1958 will show the brain and nervous system, featuring a human brain embedded in plastic, and the endocrine system. Small editions of the popular "Life Begins" exhibit also are being prepared.

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Board examination in O. & G.

The American Board of Obstetrics and Gynecology will conduct its next examinations (Part II), oral and clinical, at the Edgewater Beach Hotel, Chicago, May 7-17. Candidates will be informed of the time they are to appear.

Dr. Robert L. Faulkner, 2105 Adelbert Road, Cleveland 6, is secretary of the Board.

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Solving the registered nurse shortage

An attempt by the Veterans Administration and Illinois nurses groups to solve the registered nurse shortage in Chicago has resulted in the return of 12 nurses into the nursing field. They range in age from 33 to 65 years, and are availing themselves of a four week refresher course at the Chicago Veterans Administration West Side Hospital.

Nurses who have been away from nursing for any length of time are apprehensive about returning without a brush-up on new techniques. The 12 nurses, some of whom have not practiced their profession for 20 years, will receive two hours of classroom instruction and four hours of hospital experience each day for the four weeks. They may make application for employment with Veterans Administration or elsewhere when the training is completed. Two other Chicago hospitals are prepared to give similar courses if this VA pilot effort works satisfactorily.

Nurse groups co-operating in this venture include the Illinois League for Nursing, State Nurses Association, Chicago Council on Community Nursing, and the Committee on Careers in Nursing.

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THE P. R. PAGE



Does medicine need PR?

The editor of one of our county medical society bulletins is skeptical about the desirability of a public relations program for the medical profession. He says he came to that decision after attending the AMA's PR Institute at the Drake Hotel in August.

"Editorially Speaking", he asks why "high priced admen" should be employed to give physicians counsel, or why the individual physician needs "professional public relations promotion when the criticisms of the public are not directed toward him?"

He goes on to say: "The modern public relations program is a fiendish mixture of crude psychology and refined methodology. Its methods may serve a useful economic purpose to sell soaps, cigarettes, booze, and more fanciful products that people have no earthly use for. But, such methods should have no place in selling the practice of medicine to the public.

"We condemn advertising as individual doctors; why should we embrace such methods for our collective edification."

Perhaps here is a good opportunity to point out that there is a difference between advertising and public relations. The products he mentions are pushed by advertising, and for the most part by what he calls "a fiendish mixture of crude psychology and refined methodology." This can be done because the space is bought and paid for.

The same technique cannot be used in medical public relations. The approach must be from

a news standpoint. It must take into consideration the ethics of the profession. This requires a knowledge of the workings of medicine as well as experience in what constitutes news. A "high priced adman" would fail dismally if assigned to the job.

Medical public relations has emphasized, and is emphasizing the positive side of medicine—the progress, the aims. Even when medicine has lashed back at its enemies and has pointed out the fallacies of their arguments, that was not a defensive action. To strike back at an attacker is aggression.

"To turn the other cheek" may sound peaceable, but if medicine had followed that policy over the last decade socialized medicine in a worse form than exists in England today would have been foisted upon the American people long ago.

Yes, we need medical public relations—perhaps more so than ever before. We need it not only to keep the public informed as to what medicine stands for but we need it also to keep the physician advised regarding the weaknesses in his armor which his enemies have found.

Although in the final analysis, the public-professional relationship will depend upon what the individual physician does to keep medicine highly respected, a collective ethical public relations program can make things easier for him by bringing about a mutual understanding of the problems of the physician and of his patients.

If we are to succeed in warding off socialized medicine, there must be no skepticism regarding the value of P.R.

Back home action counts

Organizations can express their views on legislation and sometimes impress those who represent us in the state capitol or Washington, but it is the back home opinion which really counts.

It is the individual voter who gets the most attention from members of Congress and the Legislature. Keep that in mind the next time there is an election, or a legislative program is proposed which either has your approval or disapproval.

Express your views at the polls, or let them be known when legislation which affects you is pending. Write, wire, or telephone them when you are asked to do so.

“Expensive” services and drugs

Physicians who may hear complaints from patients regarding the price of pills (or for the services rendered) are provided a simple answer in an editorial by Dr. Edward R. Pinckney in the November issue of *Today's Health*:

“Today the price you really pay for your medicine is far less than in the past, if you consider what you are getting, not what you are paying.”

Many of our so-called “expensive” techniques and drugs have cut down the length of treat-

ment, hospital stay and of incapacitation materially so that in the long run the patient is better off. This is a point which many patients do not understand.

Public relations builder

The Winnebago County Medical Society (Rockford) does something in public relations which other county societies might well adopt.

Newcomers are sent a brochure outlining the medical facilities of the community, given the society's number and urged to call. As a result, telephone inquiries are received daily, and in some instances personal calls are made.

This gives the secretary, or executive secretary in this case, an opportunity to show a person that the medical profession is interested in his welfare. It also affords the society an opportunity to inform the newcomer to what physicians he may turn with confidence.

Medicine gains many friends in this way.

Informing teachers about medicine

The Medical Society of Sedgwick County (Wichita, Kan.) took 75 teachers on guided tours of physicians' offices and hospitals where routines and patient care were explained. Following a luncheon, the teachers were informed about the purposes and activities of the medical society. An Auxiliary member was assigned to every five guests. The educational program was well received by the teachers.

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AT THE EDITOR'S DESK



THE World Medical Association is attempting to investigate the alleged atrocities to physicians in Cuba. It had no response from President Batista. The association cited several examples of Cuban physicians who were persecuted and murdered while carrying out their humanitarian services to the sick and wounded. They were killed for aiding enemies of the state who had been left to die by the state police. The World Medical Association is protesting these brutalities as being contrary to the principles laid down by the Declaration of Geneva and its regulations governing physicians during armed conflict. These include: "Under all circumstances, every person, military or civilian, must receive promptly the care he needs without consideration of sex, race, nationality, religion, political affiliation or any other similar criterion."

The effects of sexual activity on the heart can be harmful and even fatal. *Esquire Magazine* has an article on this phase of life based on research done at the National Institute of Health. Drs. Roscoe C. Bartlett and Vernon C. Bohr found that the pulse rates for both male and female jumped as high as 170 beats per minute. These figures were 100 beats above the rates at rest and above the rates induced by any but the most violent exercise. Furthermore, the acceleration in beat was noted in some instances within 60 seconds. Since *Esquire* is the man's magazine, it

was natural to report that "the male" heartbeat tended to go a little higher than the female. It followed a definite pattern of slow rise, sudden peak, and fast return to normal. We expected this. No mention was made of those who claim its all in their mind.

The Department of Health, Education, and Welfare is starting an interesting series of interviews among a group of 3,000 newly retired persons throughout the country. They hope to find out how they are getting along on retirement.

Iron and iron alone is the treatment for anemia caused by iron deficiency. This is well known but needs to be reemphasized considering the number of physicians who continue to use liver, vitamin B 12 or folic acid for this type of anemia.

A group of Duke University physicians found that human skin remains alive for as long as 26 hours after a person dies. It has been said that various organs age at different rates and now we can say that they die at different rates.

Diuril, Merck's trademark for chlorothiazide, is now available and promises to become a valuable aid in the treatment of hypertension as well as an effective diuretic agent.

A new technique for treating pitted scars was presented recently at the Philadelphia meeting of the American Medical Association. It involves cutting the fibrous strands beneath each scar and injecting Fibrin-Foam. The best results were obtained in pitted scars resulting from acne, chickenpox, smallpox, and accidents.

Searle is now tranquilized. Dartal is their new psycho-chemical.

Gillette Laboratories is in the patent medicine business. They announced the introduction of Thorexlin, a non-narcotic antitussive product for symptomatic treatment of cough. If this product is as heavily advertised as their razors, blades and home permanents we can expect many questions on the non-narcotic ingredient. It is dextrome thorphan hydrobromide, an antitussive agent, which is said to be as effective as codeine as a cough suppressant.

The Sanborn Company has a new high efficiency acoustic stethoscope that will allow cardiovascular sounds to be heard approximately



twice as loud as with other commercial instruments. It comes equipped with five chest pieces to permit accentuation of certain sounds; three sets of ear pieces are also provided coming in regular, tapered, or extra large sizes.

The "rheumatoid factor" is a substance in the blood of people suffering with rheumatoid arthritis. The nature of its chemical structure and physical characteristics is not known. Rheumatologists are in doubt also as to whether it is an antibody, an enzyme, and whether it contributes

to or results from the inflammatory process in rheumatoid arthritis.

From St. Louis we learned that the depressed person who is a potential suicide awakens one to four hours earlier than usual.

Did you ever have the urge to become a medical missionary? If so, write to the Office of Missionary Personnel (150 Fifth Avenue, New York 11, N.Y.). The Methodist mission board announced that it has need for 20 doctors in its overseas mission field for 1958. The 10 locations vary from the Belgian Congo to Borneo.

Two new foundations are getting underway. The Parkinson's Disease Foundation made its kick-off in November whereas the National Tay-Sachs Association, Inc. made its debut a few weeks later. The latter group may find the road rocky because many laymen and physicians will be stumped when asked to describe Tay-Sachs disease.

Mr. K. K. Andersen, a specialist in glass research in Knox Laboratories, Inc., found why hundreds of thousands of syringes must be discarded annually because of leakage, backflow, and disappearance of markings. Alkaline erosion is the culprit. Hospitals make the practice of soaking their syringes in hot solutions of highly alkaline detergents over night. This is avoided by using a neutral detergent with a low pH.

The older patient in a small hospital is likely to have the fewest complaints about the quantity and quality of nurses' care according to a survey by the American Hospital Association. Patients in larger hospitals (300 to 499 beds) reported the greatest number of dissatisfactions involved in nurses' care. These include the amount of time spent by nurses in attendance, noise, and the hospital environment. The younger patients were less bothered by the noise from radios and television sets and liked more visitors than were allotted. The older patients wanted more quiet and fewer visitors.

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NEWS of the STATE



ADAMS

MONTHLY MEETING.—Dr. Charles L. Maxwell, Chicago, deputy director of health, Illinois Civil Defense Agency, spoke on "Our Civil Defense Program," in Quincy, November 11.

COOK

LECTURES.—Dr. C. D. O'Malley, department of history, Stanford University, gave an illustrated talk on "The Evolution of Physiology," in Chicago, December 5. This was the third of a series on the history of surgery sponsored by the School of the History of Surgery and Related Sciences of the International College of Surgeons.

The Chicago Ophthalmological Society will hold its annual clinical conference, February 21-22, at the Drake Hotel. Guest speakers include Drs. Wendell L. Hughes, Hempstead, N. Y.; P. Robb McDonald, Philadelphia; Phillips Thygeson, San Jose, Cal.; Lorenz E. Zimmerman, Washington; and Drs. Eugene R. Folk, Orville E. Gordon, William F. Hughes, Peter C. Kronfeld, David Shoch, Derrick Vail, and Howard L. Wilder, Chicago. The subjects will include a symposium on the complications of ophthalmic surgery, the zonule of the lens, glaucoma and retinal detachment surgery, plastic surgery technique, management of glaucoma cataract, melanotic tumors of the iris, and the structure of the vitreous. The 14th annual

Sanford R. Gifford Memorial Lecture will be delivered by Dr. Thygeson, February 21. Ophthalmologists are invited to attend the lecture and the buffet supper which follows. For information write Mrs. Edward J. Ryan, executive secretary, 1150 North Lorel Avenue, Chicago 51.

JESUIT CENTENNIAL.—The 102 Chicagoans chosen for distinguished achievements and contributions to the city were honored at the Jesuit Centennial Civic celebration, December 12, in the Palmer House. They included the following physicians:

Herman N. Bundesen, president, Chicago Board of Health; Lowell T. Coggeshall, dean, division of biological sciences, University of Chicago; Karl A. Meyer, medical superintendent, County Hospital; J. Roscoe Miller, president, Northwestern University; Eric Oldberg, chairman, department of neurology and neurological surgery, University of Illinois Medical School; Willis J. Potts, surgeon-in-chief, Children's Memorial Hospital; Ernest E. Irons, past-president, American Medical Association, and John Sheinin, president, Chicago Medical School.

CHICAGO MEDICAL SCHOOL GRANTS.—A total of \$304,087 in research grants has been received by the Chicago Medical School since June. Of these, \$77,712 came from the U.S. Public Health Service. The grants include those for studies of heart and lung functions, heart pres-

sure tracings, pollen, mechanism of acute pulmonary edema, and cancer.

SOCIETY NEWS.—A seminar on recent developments in diabetes mellitus was held by the Chicago Diabetes Association on November 20. Dr. Henry T. Ricketts, professor of medicine, University of Chicago School of Medicine, was moderator for papers and discussions on the pathology, diagnosis, and therapy of the disease.

At a joint meeting of the Chicago Society of Internal Medicine and the scientific section of the Chicago Heart Association, November 25, open cardiac surgery was discussed as to clinical detection by Dr. Robert A. Miller; the viewpoint of a pediatric cardiologist by Dr. Benjamin M. Gasul, and its practical and physiologic considerations by Dr. F. John Lewis.

A meeting of the Society of Medical History of Chicago was held at the Institute of Medicine, December 11. Lecture participants included: Dr. J. Garrott Allen, professor of surgery, University of Chicago School of Medicine, "The Story of Phlebotomy and Transfusion;" and Dr. Frederick Stenn, assistant professor of medicine, Northwestern University Medical School, "What Is the True Symbol of Medicine?"

CANA PHYSICIANS HONORED.—Three Chicago physicians who pioneered in the Cana Conference on premarriage education to couples in the Chicago area were honored by Cardinal Stritch at a dinner in the Drake Hotel, November 23. They are Dr. Edward Donaghue and Dr. Robert McCreedy, Chicago, and Dr. Gregory White, Franklin Park.

CARDINAL'S DINNER.—Contributions from guests at the Cardinal's dinner, November 15, at the Hilton Hotel, totaled \$271,000. The proceeds will be used to meet the operating deficit of the Stritch School of Medicine of Loyola University and of Lewis Memorial Maternity Hospital.

FULTON

Film.—The American Cancer Society showed "Time and Two Women" at a noon meeting of the Fulton County Medical Society in Canton, November 21.

KANE

SPEAKS ON TRANQUILIZING DRUGS.—Dr. Werner Tuteur, Elgin, spoke on "Tranquilizing Drugs, Their Possibilities and Limitations," before the Friends of the Mentally Ill, in Chicago, November 6. Dr. Tuteur spoke on "Tranquiliz-

ing Drugs, Their Use and Abuse," at the Wisconsin Welfare Forum in Milwaukee, November 24.

MORGAN

HOST TO MEDICAL SOCIETY.—Dr. F. G. Norbury and the staff of the Norbury Sanatorium of Jacksonville were hosts to the Morgan County Medical Society, in Jacksonville, December 3. Dr. James H. Hutton, Chicago, spoke on "Cushing's Disease."

WARREN

DR. VAN DELLEN IS SPEAKER.—Dr. Theodore R. Van Dellen, health editor of the Chicago Tribune, and associate editor of the Illinois Medical Journal, talked before the Rotary Club of Monmouth and their Rotary Annes, November 18. Dr. Van Dellen discussed "Newspaper Medicine," telling the ladies what may be done to maintain their husband's health. He gave statistics demonstrating the increased mortality rate in man in contrast to that of women in the United States. Since 1945, the female population of this country has surpassed the male population and the excess now is 1,700,000.

GENERAL

ANTI-NARCOTICS DIRECTOR.—Governor Stratton appointed Malachi L. Harney, 62, of Washington, to head the state's new anti-narcotics program. Mr. Harney is a former law enforcement official of the United States Treasury Department.

HEALTH RESEARCH GRANTS.—Expansion of the Nation's health research facilities favors six Illinois institutions with a total grants of \$74,959. These awards were approved by the Surgeon General on recommendation of the National Advisory Council on Health Research Facilities.

Thirty-one grants to Illinois institutions totaling \$747,229. for training and research in mental health were announced by the Illinois Psychiatric Training and Research Authority. Issuance of the grants was the authority's first action. The authority was established by the 69th General Assembly and activated July 1 to function as an adjunct to the Illinois Department of Public Welfare.

DEATHS

JOHN F. BARTIZAL, SR.*, Riverside, who graduated at Northwestern University Medical

*Indicates member of the Illinois State Medical Society.

School in 1924, died December 9, aged 64, en route to the West Suburban Hospital, Oak Park.

ROBERT F. DILLON*, River Forest, who graduated at Loyola University School of Medicine in 1946, died November 27, aged 36. He was assistant professor of Medicine at Stritch School of Medicine of Loyola University and in charge of the pediatric and cardiophysiology laboratory at Cook County Hospital.

RALPH MORRIS EPPSTEIN, retired, Chicago, who graduated at the Chicago College of Medicine and Surgery in 1911, died September 7, aged 76, of carcinoma of the rectum.

MURIEL FULLER, Chicago, who graduated at the University of Chicago School of Medicine in 1935, died August 1, aged 66, of myocardial failure.

JANETTE LOUISE HOLT*, New Lenox, who graduated at the University of Illinois College of Medicine in 1928, died August 28, aged 66, of cerebral hemorrhage and hypertension.

AUGUSTUS HOLM*, retired, Moline, who graduated at the University of Michigan Department of Medicine and Surgery, Ann Arbor, in 1901, died September 15, aged 85, of uremia and bleeding duodenal ulcer.

BENJAMIN KADISH*, retired, Chicago, who graduated at the Chicago College of Medicine and Surgery in 1917, died November 16, aged 63. He was a staff physician for the Chicago Board of Health.

LOUISE HELMKA KEATER, retired, Polo, who graduated at Northwestern University Woman's Medical School in 1901, died September 7, aged 84, of toxemia, following burns received when her blouse caught fire as she was burning papers in a stove. She was at one time a medical missionary in China, and for many years associated with the Dixon State Hospital.

JOHN W. KIRK*, Oblong, who graduated at the Hospital College of Medicine, Louisville, in 1897, died August 26, aged 87.

PHILIP A. KROME, retired, Chicago, who graduated at Rush Medical College in 1900, died November 25, aged 84.

FRANCIS J. KRUSZKA, Chicago, who graduated at the Chicago College of Medicine and Surgery in 1913, died November 22, aged 70. He had practiced medicine for more than forty years.

EVA JANE LINE*, Skokie, who graduated at

the University of Pennsylvania School of Medicine in 1926, died November 16, aged 57. She had limited her practice to the field of pediatrics.

JOHN L. MEYER*, Winfield, who graduated at the Chicago Medical School in 1933, died November 13, aged 50. He had been a member of the staff of South Shore Hospital for 24 years.

LYNDEN OGDEN, Lexington, who graduated at the University of Louisville, Kentucky, in 1920, died September 21, aged 61, of a heart attack.

CLINTON B. OLNEY*, Chicago, who graduated at Northwestern University Medical School in 1930, died November 14, aged 66.

LOUIS ALLAN RICHBURG*, Glencoe, who graduated at the University of Illinois College of Medicine in 1929, died November 20, aged 56. He was a member of the staff and head of the department of general practice at the Highland Park Hospital.

JAMES LAURENCE SMITH, Chicago, who graduated at the College of Physicians and Surgeons of Chicago, School of Medicine of the University of Illinois, in 1904, died September 11, aged 75, of acute myocardial infarction. He had served as managing director of the Illinois Eye and Ear Infirmary.

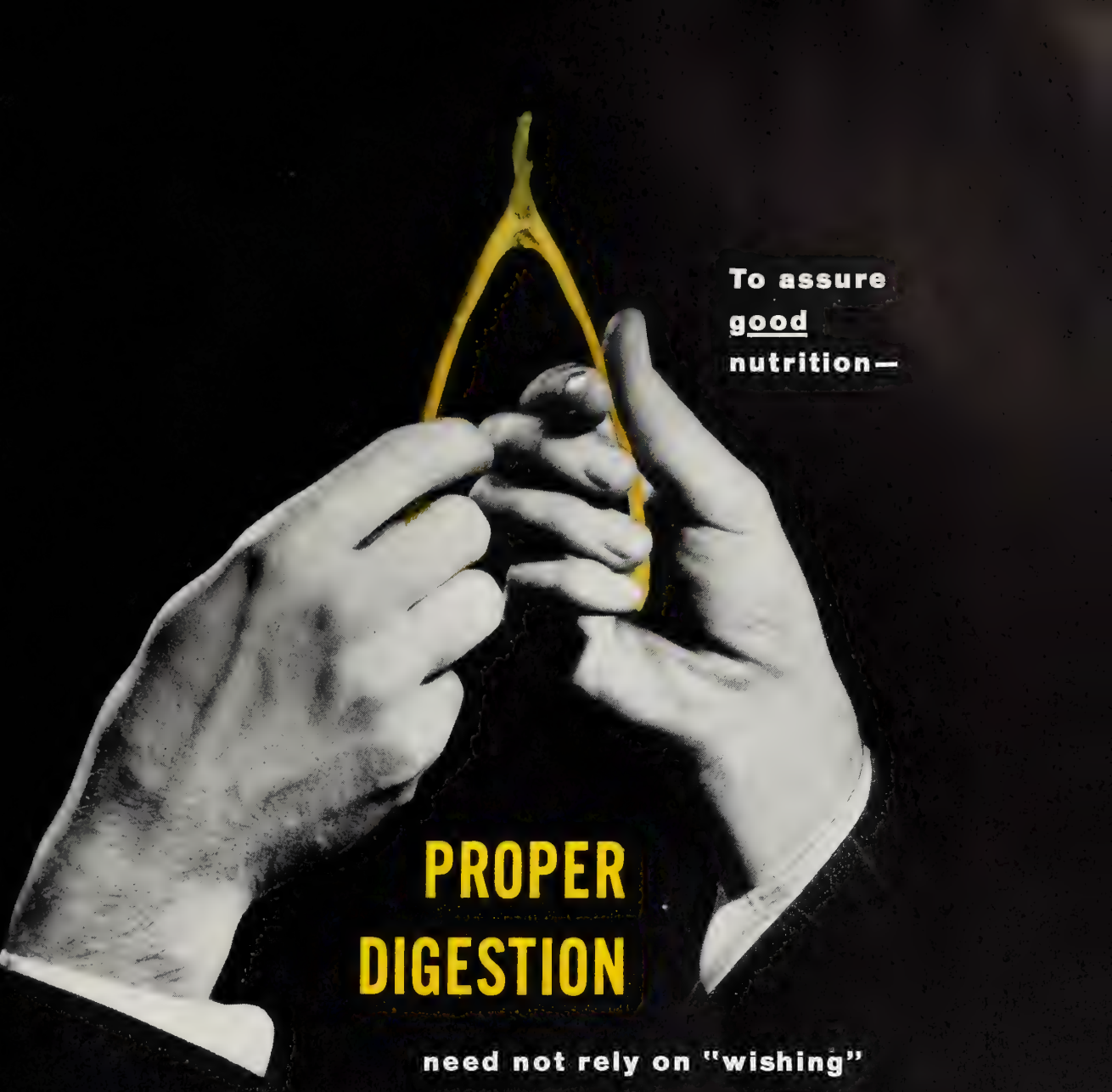
MARTIN STRAND*, retired, Chicago Heights, who graduated at Rush Medical College in 1896, died November 30, aged 84. He was made an emeritus member of the Illinois State Medical Society in 1947.

CHARLES BERNARD VOIGT*, Mattoon, who graduated at the College of Physicians and Surgeons of Chicago, School of Medicine of the University of Illinois, in 1900, died September 8, aged 82. He was a member of the American Academy of Ophthalmology and Otolaryngology, fellow of the International College of Surgeons and the American College of Surgeons, and local surgeon for the Illinois Central and the New York Central Railroads.

WILLIAM DANIEL WEST*, retired, Belleville, who graduated at St. Louis College of Physicians and Surgeons in 1893, died August 24, aged 87.

BARCLAY WILKINSON*, Chicago, who graduated at Northwestern University Medical School in 1912, died December 1, aged 75. He had been a member of the staff of St. Bernard's Hospital for 40 years.

*Indicates member of the Illinois State Medical Society.



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BOOK REVIEWS



ANALYTICAL PATHOLOGY. Treatises in the Perspective of Biology, Chemistry and Physics. Edited by Robert C. Mellors, M. D. Ph. D. Associate, Pathology Division, Sloan — Kettering Institute for Cancer Research; Assistant Pathologist, Memorial Center for Cancer and Allied Diseases; and Assistant Professor of Pathology, Cornell University Medical College, Sloan-Kettering Division, New York. McGraw-Hill Book Company, Inc., New York, Toronto & London, 1957. 477 pages. \$12.00.

This is a collection of treatises written by eight physicians and edited by Dr. Mellors. Each collaborator is engaged in research work and is prominent in his field. These theses cover problems and achievements in modern medical sciences, presenting fundamental aspects of etiology and pathogenesis of disease processes. The work includes cancer, arteriosclerosis, kidney disease, liver failure, macrocytic anemia, abnormal hemoglobins, and hypersensitivity, with special reference to the connective tissue disease.

They "highlight functional pathology by showing repeatedly the inter-relation between altered form and function.

"The fundamental aspects of pathology and medicine must be viewed today in the perspective of biology, chemistry, and physics. Encompassed in this concept are physiologic, investigative, experimental, chemical, clinical, and morphologic pathology.

"This work is not a text book, but is a refer-

ence book containing comprehensive information."

There is an enormous bibliography. There is a great advantage in a book of this nature.

C. P. B.

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HEMORRHAGIC DISEASE. By Armand J. Quick, Ph.D., M.D., Professor of Biochemistry, Marquette University School of Medicine, Milwaukee, Wisconsin. 451 pages. Illustrated. 31 tables. First edition. Lea & Febiger, Philadelphia. \$9.50.

This book is an excellent and informative discussion of the hemorrhagic diseases. The monograph contains a practical guide to understanding, diagnosis, management, and treatment of bleeding states seen in general practice. The historical development of the concepts of hemostasis is told in the introductory chapter. Theoretical aspects of coagulation are confined to one chapter, which permits a presentation of the various hemorrhagic disorders from a clinical point of view.

Each chapter is treated as an independent unit, thus permitting its perusal without reference to previous or subsequent material. The various hemorrhagic diseases are discussed in separate chapters which includes most of the recent advances on the new clotting factors, differential diagnosis, and classification of congenital hypoprothrombinemias, hemophilia and hemophilia-like diseases, new concepts of thrombo-

(Continued on page 60)



One **Bellergeral Spacetab*** morning and evening.
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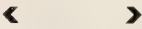
BOOK REVIEWS (Continued)

cytopenic purpura, and thrombocythemia. The text summarizes the essential knowledge of obstetrical bleeding due particularly to hypofibrinogenemia as to etiology, pathology, symptomatology, clinical course, diagnosis, and treatment. There is concise presentation of pseudohemophias A and B, telangiectasia, hyperheparinemia as a cause of bleeding, and bleeding following incompatible blood transfusion. Venous thrombosis is considered separately.

The second part of the monograph is devoted entirely to laboratory methods for the study and diagnosis of hemorrhagic diseases. Each procedure is described in detail including a range of normal values. The clinical application and interpretation of each test are discussed critically. Quick's opinions and theories on the factors involved in the coagulation mechanism in contrast to investigators who do not share his opinion offer interesting and stimulating reading. Social implications and genetic aspects of hemorrhagic diseases are considered fully. The monograph

can be recommended to all physicians, medical technologists, and clinical chemists.

L. R. L.



PRINCIPLES OF UROLOGY. Author — Meredith Campbell. Published — W. B. Saunders.

Recently there have been several books designed to cover the field of urology. This is the most recent of these books. It is definitely not a handbook, but gives an excellent coverage of the field. It is not designed as a reference work, but rather as a useful tool in the teaching of medicine and also in the practice. The author has presented his subject in a most clear and concise manner, without going into controversy or extraneous detail. One of the most intriguing parts of the book is found on the second page where he gives some rather sharp criticism of the use of slang and the use of some common errors or what might be termed slang in reference to urological terms. He proceeds with the list of words that are commonly used, not only in urology but in the field of medicine. This is a

(Continued on page 64)

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TABLETS: Each tablet contains 0.5 Gm. ($7\frac{1}{2}$ grains) of sulfamethoxypyridazine. Bottles of 24 and 100 tablets.

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BOOK REVIEWS (Continued)

valuable addition, both for the student and for those who wish to improve logical sequence of urological knowledge. The indications and contraindications of the various procedures are well outlined. There is no doubt in the reader's mind as to what the author considers the best mode of treatment for any entity. He heartily, fairly condemns those procedures which he feels are unnecessary and needless.

This is not the usual handbook in which a vast amount of material is crowded into a few pages, but a rather complete presentation of important items in a large field. It is recommended to all physicians for their bookshelf.

A. M. T.

BOOKS RECEIVED

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

- PRACTICAL ELECTROCARDIOGRAPHY. By Henry J. L. Marriott, M.D., Associate Professor of Medicine, University of Maryland; Chief, Electrocardiograph Department, Mercy Hospital, Baltimore. Illustrated by Marcie Ethridge Perry. Second edition. The Williams & Wilkins Company, Baltimore.
- THE ELECTROPHYSIOLOGY OF THE HEART. Annals of the New York Academy of Sciences; Volume 65, Art. 6. Otto St. Whitelock, Editor in Chief. \$4.50.
- SECOND CONFERENCE ON SULFONAMIDES. Annals of the New York Academy of Sciences. Volume 69, Art. 3. Otto V. St. Whitelock, Editor in Chief. \$3.00.
- SUBCELLULAR PARTICLES IN THE NEOPLASTIC PROCESS. Annals of the New York Academy of Sciences. Volume 68, Art. 2. \$5.00.
- THE CLOSED TREATMENT OF COMMON FRACTURES. By John Charnley, B.Sc., M.B., F.R.C.S., Orthopaedic Surgeon, Manchester Royal Infirmary. Second edition, Williams & Wilkins Company, Baltimore, Maryland. \$10.00.
- TUMOR SURGERY OF THE HEAD AND NECK. By Robert S. Pollack, M.D., F.A.C.S., Clinical Instructor in Surgery, Stanford University School of Medicine. 101 pages. 112 illustrations on 49 figures. Lea & Febiger, Philadelphia 6, Pa. \$5.00.
- ATOMIC ENERGY IN MEDICINE. By K. E. Halnan. Philosophical Library, New York. \$6.00.
- THE INCURABLE WOUND and Further Narratives of Medical Detection. By Berton Roueche. Little, Brown & Company, 34 Beacon Streeton, Boston 6. \$3.50.

(Continued on page 66)



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*Joseph, Morris: Effective Analgesia Without Sedation or Narcosis, Clinical Medicine, August 1957.



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BOOKS RECEIVED (Continued)

SYMPOSIUM ON DISEASES AND SURGERY OF THE LENS. Editor, George M. Haik, M.D., F.A.C.S., Diplomate, American Board of Ophthalmology. Associate Editor, Elizabeth M. McFetridge, M. A., and Art Editor, Don Alvarado, Assistant Professor of Medical Illustration and Head of the Department, Louisiana State University School of Medicine. The C. V. Mosby Company, St. Louis, \$10.50.

THE DEGENERATE SPIROCHETE. By Oscar Daniel Meyer, M. D. Vantage Press, Inc., New York, \$5.00.

THE HEALING OF WOUNDS. Edited by Martin B. Williamson, Ph.D., Professor of Biochemistry, Stritch School of Medicine, Loyola University, Chicago. The Blakiston Division, McGraw-Hill Book Company, New York, New York. \$7.00.

DEAFNESS, MUTISM AND MENTAL DEFICIENCY IN CHILDREN. By Louis Minski, M.D., F.R.C.P., D.P.M. Consultant Psychiatrist Royal National Throat, Nose and Ear Hospital Grays Inn Road, W.C.I., Associate Psychiatrist, St. George's Hospital, Hyde Park Corner, S.W.I., Etc. Philosophical Library, New York 16, New York. \$3.75.

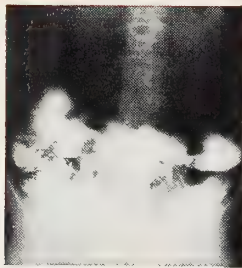
A SYNOPSIS OF OTORHINOLARYNGOLOGY. By John F. Simpson, F.R.C.S., Ian G. Robin F.R.C.S., and J. Chalmers Ballantyne, F.R.C.S. With a section on Neurology of the Ear, Nose, and Throat by Charles Harold Edwards, M.R.C.P. John Wright & Sons Ltd., \$8.50.

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1. Wood, W. S.; Kipnis, G. P.; Spies,
H. W.; Dowling, H. F.; Lepper, M. H.,
and Jackson, G. F.: A.M.A. Arch. Int.
Med. 94:351 (Sept.) 1954.

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Remedies for dermatitis

An acute dermatitis characterized by edema, blisters, and exudation requires the application of a moist agent, which should be cool if the eruption is induced by chemical or plant irritants, or hot if bacterial infection is present. Cool solutions reduce hyperemia of the skin and decrease the sensation of itching. Useful medications are sodium chloride, boric acid, magnesium sulfate, or aluminum acetate, each properly diluted. Plain ice water often is satisfactory and so is skim milk. The solution selected should be used as intermittent rather than continuous soaks or compresses, allowing aeration and drying between applications. When extensive areas of the body are involved, the simplest form of generalized treatment consists of a tepid "colloidal" bath containing cornstarch or oatmeal. Alternating with compresses or in the intervals between baths, a mild, oily application may be used such as emulsion of equal parts of lime water and olive oil, calamine liniment (N. F. IX), or bismuth cream which is composed of 4 per cent bismuth subnitrate, 4 per cent zinc oxide, and equal parts of olive oil and lime water. If secondary infection has supervened, an antibiotic (not penicillin) ointment may be alternated with the moist medication, provided the areas involved are limited. Otherwise, systemic antibiotics are required. When the acute phase of an eruption has subsided, a bland ointment is useful such as ointment of boric acid, ointment of zinc oxide, or the heavier Lassar's plain zinc paste without salicylic acid. At a later stage, gently stimulating tars are added to the ointment selected, such as 3 per cent ichthammol (N. F.), 1 per cent pine tar, or 1 or 2 per cent coal tar solution (liquor carbonis detergens). Of the numerous anesthetic and anti-itch agents available, none is as effective and safe as the time-honored menthol, phenol, and camphor, alone or combined, in $\frac{1}{8}$ per cent concentration. Other antipruritic drugs may act as sensitizers and should be handled circumspectly or, preferably, avoided. Topical hydrocortisone is effective in many cases but not in all and its expense at the present time restricts its practicability to relatively small portions of the body. *Morris Waisman, M.D. Dermatologic Problems of Elderly Persons. Geriatrics. Sept. 1957.*

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Reconstruction of damaged knee

Several techniques currently are in vogue for reconstruction of the painful, stiff, or ankylosed knee. Reshaping of the joint surfaces and interposition of a membrane of fascia, cutis, or nylon is the present standard procedure for complete arthroplasty of the knee. The surface of the tibial plateau usually is converted into a shallow, transverse depression, and the distal femur is shaped as a single condyle to articulate with the tibia. Proponents of this technique cover the femoral condyle with nylon or line the entire new joint with fascia lata. Kuhns et al. reported a series of 77 nylon arthroplasties, with follow-up studies as long as nine years in 70, 26 patients having over 90 degrees of flexion and 32 having 60 degrees or more of active flexion.

A recent report from the Campbell Clinic reviews the long term results of fascial arthroplasty. In this series, the average follow-up period was six to 27 years. They report that it reaches maximum function after five to seven years and improvement often continues for this many years. The study indicates that a satisfactory knee joint can be constructed by fascial arthroplasty and will withstand daily use quite

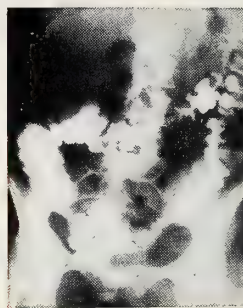
well. The results have not been rated as excellent, good, or fair. In Europe and Great Britain, prosthetic replacements for almost every diseased joint have been designed and used clinically. The knee has been no exception. A number of different types of knee-joint hinges are reported in the current literature. From Sweden, Wall-dius reported on eight cases treated with an acrylic prosthesis that replaces the articular surfaces of both the femoral and tibial condyles. Motion is permitted by a hinge between the two parts of the prosthesis. His prosthesis requires the removal of 3 cm. of bone from the femur and 1 cm. of bone from the tibia, and allows a maximum motion of 95 degrees. Of patients followed for over eight months, three had essentially the full 95 degree of motion, one had only 35 degrees, two walked without support, and two walked with support. Strength was stated to be quite good. Similar mechanical hinge joints also have been developed in England, Holland, Denmark, and France.

Certain types of painful, stiff knee joints may not require complete arthroplasty. Magnuson has described a housecleaning operation for

(Continued on page 74)

when anxiety and tension "erupts" in the G. I. tract...

in spastic and irritable colon



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DAMAGED KNEE (Continued)

joints with severe degenerative arthritis. It consists in thorough debridement of the joint, including removal of the semilunar cartilages, the cruciate ligaments, and the bony exostoses on the femoral condyles and the tibial plateau. The patella, which usually is involved in the degenerative process, may be removed completely or partially resected, and its articular surface covered with a flap from the adjacent infrapatellar fat pad. This operation for painful degenerative arthritis of the knee seems to be gaining in popularity and is a useful addition to the surgeon's armamentarium. *Otto E. Aufranc, M.D. et al. Orthopedic Surgery. New England J. Med. May 23, 1957.*

< >

Viral diseases

Viruses cause no fewer than 50 different diseases in man and many more than that in plants and animals. In human beings, they lead to an enormous burden of illness although in general, except in huge pandemics of the kind that occurred in 1918, most viral diseases do not cause death directly. In this country they tend to produce between four and six episodes of illness per person per year. On the average, man is afflicted by one or another viral disease about 10 per cent of his life. Over a span of 70 years, man suffers for seven years from viral diseases. To put it another way, in this country, about 5 billion man days are lost each year through viral diseases. No other category of disease approaches this total in terms of human disability. *Frank L. Horsfall, Jr., M.D. Virus Diseases. Pub. Health Rep. Oct. 1957.*

< >

Enjoy the present

Man is so occupied with the ties that bind him to the past and the future that he fails to pause often enough to enjoy the present. We see no reason to remind physicians that life is not a static thing, that it is in a state of flux. But we do see reason to remind you that you will never be able to dangle your feet again in the same water in the stream of time, so start dangling—enjoy the present. *Editorial. Dangle. Minnesota Med. May 1957.*

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Great ability without discretion comes almost invariably to a tragic end. — Gambetta



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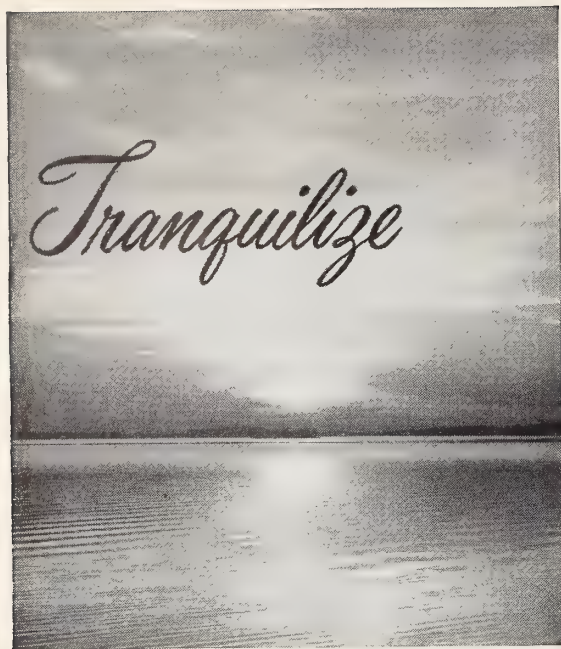
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Phenylbutazone—pro and con

Many are convinced that phenylbutazone should be abandoned or its use severely restricted, holding that the use of a drug that has proved so toxic is almost never justified, especially if its main effect is symptomatic relief. The availability of other agents as effective or nearly so, with greatly reduced toxicity, are regarded as strong support for their contention. Proponents of this belief would agree with Snow's recommendation that phenylbutazone should not be used in patients in whom less toxic drugs fail to give adequate relief or in patients with a history of peptic ulcer or allergy and in the older age group where edema and heart failure are possible complications. The daily dose should be kept as low as possible, preferably 200 mg. or less, and the drug should be stopped if no improvement occurs in five to seven days. Patients should never be given prescriptions for large amounts or repeat renewals, since this may cause them to fail to check with the physician. Finally, any physician not willing or able to accept the responsibility of careful, continuous observation of each patient should not prescribe the drug. Everyone agrees that there must be close observation of the patient, with repeated blood checks which should include a white cell and a differential count, if they are to be useful. Patients are careless about repeated checkups and do not report early toxic changes, and some rebel at repeated visits. Many physicians do not have available routine office facilities for adequate blood evaluation and must, for adequate precautions, send their patients to a commercial or hospital laboratory for repeated blood checks. Thus, it can be appreciated how much added effort and expense is entailed by phenylbutazone, when it is used in the approved manner. This makes it a far more expensive medication than agents such as the salicylates. Some physicians, on the other hand, are enthusiastic about the drug and consider it a real advance in therapy. They think the results obtained justify the risk and expense and are of the opinion that with the adoption of the lower dose ranges of 0.2 gm. or less a day, much less toxicity will be reported. Undoubtedly, there is much merit in what they believe, but in view of what is already known, it is exceedingly important that this drug be

(Continued on page 84)

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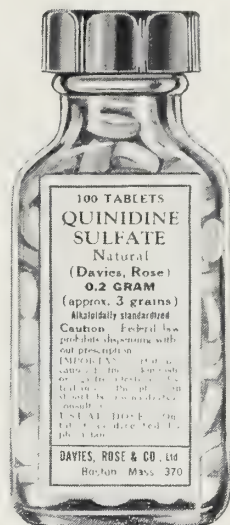
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PHENYLBUTAZONE (Continued)

studied carefully under highly controlled conditions in an adequate number of patients to settle without doubt whether it really has a true curative effect or whether its action is symptomatic and of the type afforded by the salicylates and therefore of insufficient value to justify the serious side effects. *Dale G. Friend, M.D. Current Concepts in Therapy. New England J. Med. Oct. 10, 1957.*

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SOCIAL SECURITY SAYS: "It is common knowledge that most of us because of living costs, social standards, and economic misfortunes, do not set aside enough money or other assets during our working years to provide adequately for ourselves or our families when earned income is cut off by disability, old age, or death."

In Other Words: Social Security believes that "most of us" must depend upon the government in our "hour of need."

Viruses and cancer

At present, it appears probable that viruses are the causative agents of some, if not all, cancers. In support of this is the recent article, "Viruses and Cancer," in which W. M. Stanley is quoted as follows: "I believe the time has come when we should assume viruses are responsible for cancer in man, and design and execute our experiments accordingly." Stanley was speaking as an authority and as a Nobel prize winner in the field to the Third National Cancer Conference. As soon as we know more about viruses, a more correct interpretation of our current knowledge, together with a greater understanding of the mechanisms involved, will provide a solution and lead to a cure of a major medical problem. *George W. Campbell and Warren Litsky. Viruses and Cancer—Fact or Fantasy? Geriatrics. Sept. 1957.*

< >

It is with narrow-souled people as with narrow-necked bottles; the less they have in it, the more noise they make in pouring it out. — Pope

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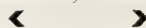
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Congress on allergy

The Third International Congress on Allergy, sponsored by the International Association of Allergology and French Allergy Association, will be held in Paris, October 19-26. The program will consist of symposia on asthma and emphysema, immunology, recent clinical advances, biochemical aspects, auto-immune reactions, dermatology, and socio-economic aspects. Participants are world authorities in special fields.

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Vol. 113, No. 2

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CHLOROMYCETIN is a potent therapeutic agent and, because certain blood dyscrasias have been associated with its administration, it should not be used indiscriminately or for minor infections. Furthermore, as with certain other drugs, adequate blood studies should be made when the patient requires prolonged or intermittent therapy.

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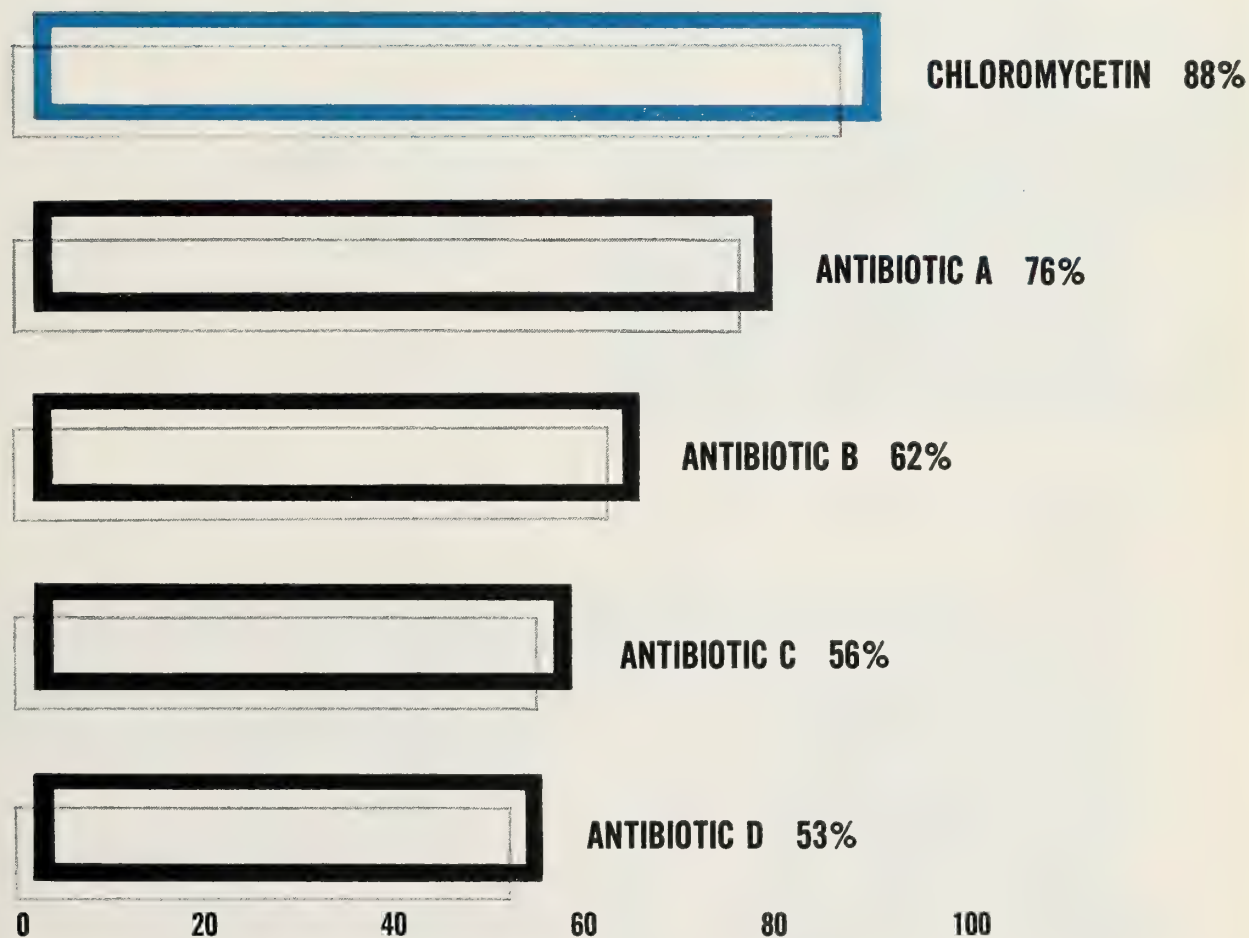
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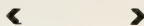
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*Adapted from Ditmore and Lind.² Organisms tested were isolated from stools of 48 patients.

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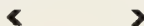
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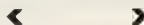
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The curious, searching quality of a child can be a wondrous thing, wandering continually through a world of new sights and sounds and new objects that need to be experienced. But often the inquiring hand of the child inadvertently finds pain.

This is the case history of Jimmy J., an 18-month-old boy brought to the hospital with a complaint of diarrhea and vomiting. When first seen, Jimmy was in shock. It developed that he had eaten a number of enteric-coated ferrous sulfate tablets about two hours earlier. He vomited ten of the tablets soon after, and vomited again on administration of egg yolk. Now he was weak and somnolent, with hyperactivity of deep reflexes.

Initial laboratory examination showed a hemoglobin of 10.8 grams, RBC 5.4 million, WBC 52,000. *Serum iron level was approximately 55 times higher than normal* — 8150 mcg./100 cc. Necrotic intestinal mucosa was passed per anum.

Forced fluids, antibiotics and dextrose were started, but the patient remained in shock until given 150 cc. of whole blood by scalp-vein transfusion. Subsequent treatment included milk with added electrolytes, vitamin K and levulose. Jaundice developed two days after admission but cleared in five days. Bone marrow was compatible with tissue breakdown or with chronic infection.

Six days after admission, Jimmy was able to take a general diet. Serum iron returned to normal, the patient became asymptomatic eleven days after admission, and was then discharged.

Jimmy was fortunate; approximately one out of every two cases of iron intoxication do not recover.



Jimmy was fed the ferrous sulfate tablets by his older brother. Attractively colored sugar-coated pills have an appeal for young palates, yet may often prove fatal.



On admission to the hospital just two hours later, Jimmy presented the classic triad of iron poisoning—vomiting, shock, leukocytosis. Treatment was started immediately.



Necrotic mucosal tissue passed by rectum indicated local g.i. damage caused by the corrosive action of the tablets. Fluoroscope confirmed presence of tablet material.



Significantly, serum iron level prior to transfusion had risen to 8150 mcg./100 cc., more than 50 times higher than normal, indicating uncontrolled absorption of iron salts from the child's intestinal tract.

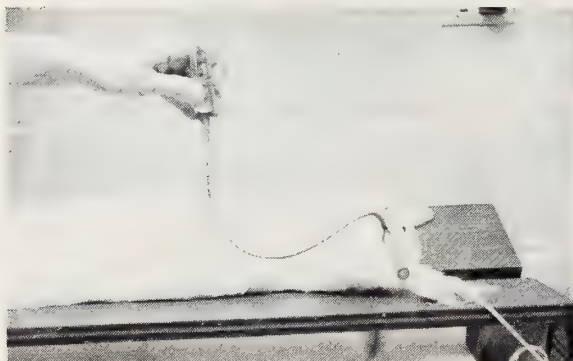


Despite apparent damage to g.i. tissue, Jimmy was able to take food by mouth six days after admission. Thus, systemic toxicity may not be related to tissue damage.

RECENT FINDINGS INDICATE CHELATION MINIMIZES RISK OF IRON TOXICITY

Studies of iron intoxication described in the recent A. M. A. Scientific Exhibit consistently reveal a direct ratio between elevation of serum iron and incidence of fatality. In a series of dogs and rabbits given 250 mg. iron per Kg. as aqueous solutions of ferrous sulfate or gluconate, all animals died. As in the case of Jimmy, toxicity in these experimental animals was al-

ways associated with serum iron elevation far beyond total binding capacities. However, in other animals given equal amounts of iron as iron choline citrate (FERROLIP[®]), an iron chelate, all rabbits and 90 per cent of dogs survive without evidence of toxicity. Thus, *chelated* iron seemed to permit controlled absorption of iron as needed, without decrease in hematinic effect.



Animal studies confirm relationship of fatality to excessive serum iron elevation with ferrous sulfate or gluconate.



A new iron chelate (iron choline citrate—FERROLIP) appears to avoid this excessive elevation of serum iron.

FERROLIP... EFFECTIVE AND SAFE

The inherent safety of FERROLIP is apparently due to chelation. The iron complex—"chelated," or bound—apparently can be absorbed and utilized by the body as physiologically needed, at a controlled rate, thus essentially obviating the possibility of excessive free iron in the blood stream. In contrast to readily dissociable iron salts such as ferrous sulfate or ferrous gluconate, experimental evidence has shown that massive doses of FERROLIP have rarely been associated with a dangerous elevation in serum iron.

FERROLIP has additional practical advantages over other forms of iron therapy. As a chelate, it is nonionized, nonastringent, and it remains in solution at pH levels up to 10.5. Consequently, FERROLIP is essentially free from g.i. irritation; it is not precipitated by protein or phosphate, and it can be given in milk or formula; also FERROLIP does not attack or discolor the teeth.



The Greek word *chele* means a claw. The term *chelation* is now applied to chemical processes whereby metallic ions are sequestered or bound into claw-like rings within certain organic molecules. Chelation can be applied to any problem wherein ions of a metal cause trouble. The iron in FERROLIP is bound by this process.

FERROLIP is available in the following forms:
TABLETS—Three FERROLIP Tablets supply 1.0 Gm. of iron choline citrate equivalent to 120 mg. of elemental iron and 360 mg. of choline base.

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DROPS—Each cc. of FERROLIP Drops provides 16 mg. elemental iron and 48 mg. choline base.

DOSAGE: Adults, 1 or 2 tablets or 2 to 4 teaspoonfuls of syrup t.i.d.; children, 1 tablet or 2 teaspoonfuls t.i.d.; 0.5 cc. of drops supplies M.D.R. for infants and children up to 6 years —therapeutic dose as determined by physician.

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in iron deficiency anemia**

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Pints and gallons

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Vitamin B ₁₂ with Intrinsic Factor Concentrate	1 U.S.P. Unit (Oral)
Vitamin A	5000 Units
Vitamin D	500 Units

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SUPPLIED: Bottles of 60, 100, and 1000.

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Vitamin B ₁₂ with Intrinsic Factor Concentrate	1/3 U.S.P. Unit (Oral)
Liver, Desiccated, N.F.	100 mg.
Ascorbic Acid	50 mg.
Folic Acid	0.5 mg.
Thiamine Hydrochloride	2 mg.
Riboflavin	1 mg.
Pyridoxine Hydrochloride	0.5 mg.

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The Month in Washington



Washington, D. C. — Russian advances in outer space have triggered a whole series of debates, not the least of which is the issue of the scope and extent of federal participation in higher education. From it may emerge at the very minimum a scholarship program benefiting pre-medical students and some medical students.

Here are some of the questions that Congress will have to answer before it writes a final bill on federal aid to higher education:

1. Should a program be limited to federal scholarships or should it include grant money for improving and enlarging colleges and universities, or for loans to students?

2. If it is limited to scholarships, should they be non-categorical in nature rather than favoring specific disciplines?

3. If non-categorical and thus benefiting all phases of higher education, how best to justify this approach in the national interest and national security?

4. Finally, if aimed at specific disciplines, should not Congress require some obligation for service on the part of the recipient?

Some of the answers have been given in the administration's plan now before Congress. As outlined by Secretary Folsom of the Department of Health, Education and Welfare, \$1 billion would be authorized over a four-year period. The money would go for 10,000 scholarships a year to bright students unable to finance their schooling, for National Science Foundation grants and fellowships for post-doctoral training and up to \$125,000 for any one school to improve facilities.

It has been explained that this program would benefit pre-medical students but that since scholarships would be limited to four years, students would have to find other ways to finance most of their years in medical school. After receiving their medical degrees, however, they would be eligible for the fellowships from the National Science Foundation.

The administration program favors the non-categorical approach, although preference would be given high school students with good preparation in math and the sciences. Students themselves would decide what college course to pursue.

This program has met mixed reaction. Educators say considerably more money should be authorized—some asking for as much as four times the proposed \$1 billion.

The American Council on Education, which takes in nearly all accredited colleges, universities and junior colleges, told a House Education subcommittee that the 10,000 scholarships are "a minimum below which a program of effectiveness would be doubtful . . ."

The council outlined for the subcommittee these guiding principles:

1. The student should have complete freedom to choose his own program of studies within the requirements set by the individual institution.

2. Stipends up to a maximum amount set generally for the program should be sufficient to enable the student to attend an eligible college.

3. The student should not be denied the oppor-

(Continued on page 34)

CLINICAL COLLOQUY

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the pain tablets I prescribe
are too slow-acting...
they usually take about
30 to 40 minutes to work.*

**Why don't you try
the new analgesic
that gives faster,
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WASHINGTON (Continued)

tunity to attend any recognized college or university properly accredited under a regional accrediting association.

4. There should be no discrimination because of race, creed, color or sex.

NOTES

First legislative activity of interest to the medical profession this year was the House Ways and Means Committee's month-long hearing on tax revision; testimony in favor of the Jenkins-Keogh bill was presented late in January.

National Science Foundation is inviting colleges and universities to apply for financial help in conducting in-service courses and institutes for advanced study by high school mathematics and science teachers. Applications must be received by NSF before March 15.

A new national organization has been established to help in finding a cure for ulcerative colitis. Encouraged by the National Institute of Arthritis and Metabolic Diseases, the new foundation will use its funds to supplement those awarded by the federal government.

After six months' operation of the disability payments program under social security, benefits were going to more than 131,000 and totaled \$10 million a month. Within the next 12 months the rolls are expected to increase to about 200,000 at an annual cost of about \$175 million.

Atomic Energy Commission has in effect reduced its permissible level of life-time radiation exposure by about two-thirds. The safety regulation applies to AEC employees and those of AEC contractors.

Influential Rep. John Fogarty (D., R.I.) wants the House to ask President Eisenhower to call a White House conference on aging, at which medical and all other problems of the older population would be taken up. Mr. Fogarty also would attempt to interest states in similar conferences, to be conducted prior to the Washington meeting.

◀ ▶

I don't know what your destiny will be, but one thing I know: the only ones among you who will be really happy are those who will have sought and found how to serve. — Dr. Albert Schweitzer

when anxiety and tension "erupts" in the G. I. tract...

in spastic and irritable colon



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The ILLINOIS Medical Journal

Official Journal of The Illinois State Medical Society



FEBRUARY, 1958
VOL. 113, NO. 2

Anesthesia Problems in Trauma

JAMES A. FELTS, M.D., MARION

WITHIN the tremendous current volume of writing and speaking on anesthesia subjects, there is comparatively little material on the subject of the recent injury. This possibly is due to the fact that writers in the metropolitan medical centers do not come into contact with industrial, farm, home, and highway accidents which are seen most frequently in neighborhood hospitals of the cities and in smaller communities.

The responsibility for safe anesthesia in the recently injured patient usually is in the hands of the resident, the general practitioner who is a part time anesthetist, and the surgeon who is supervising a nurse anesthetist. This paper is directed at those groups and not at the fully trained, experienced anesthesiologist. Much of the material in this paper is so elementary it should be universally known but so many of these principles are ignored I believe they are worth repetition and consideration.

Basically, anesthesia problems in the injured patient stem from the fact that the case cannot be scheduled and prepared. There may be a substantial and continuing blood loss, and the case must be done soon to save life; and compound fractures, tendon injuries, and soft tissue injuries must be handled promptly to gain primary healing.

In either of these general categories, the pa-

tient may be in various grades of shock and his stomach may be full if the accident happened just after mealtime. Most accidents seem to occur late in the day, possibly because the victim was tired and careless. His repair is thrust on top of a full surgical schedule, at a time when the operating room personnel are tired, hungry, and secretly wishing they had gone into some field of endeavor. In this situation the anesthetist is often tempted to take short cuts and start the case without adequate preparations, in order to finish the day's work. I know of no field in which short cuts will produce more disaster than in the treatment of accidents.

This paper will deal principally with the problems of the full stomach, the patient who is a poor risk because of blood loss, and the weary anesthetist who is lured into careless habits.

A full stomach presents one of the most serious hazards in anesthesia. The danger should be constantly in the minds of the surgical personnel and yet there is a widespread tendency to dismiss it as unimportant. If stomach contents are regurgitated and aspirated into the pulmonary system, death can be almost instantaneous. Most humans can survive five to seven minutes of oxygen lack, although at the upper limits of this period some brain damage will result, particularly in older people. When stomach contents enter the pulmonary system, death is often produced much sooner than this, presumably by stimulation of a vagus nerve already sensitized by as-

Presented before the 117th Annual Meeting, Illinois State Medical Society, Chicago, May 21, 1957.

phyxia. Cardiac arrest sometimes occurs immediately. This is truly a catastrophe.

The important fact to remember is that following injury the pylorus closes and prevents gastric emptying for a long period, often up to 12 hours. Thus, if the victim ate just before injury, he will have a full stomach six or eight hours later. The food is diluted, expanded, and liquefied by gastric juice, but is not emptied. The important question, then, is not how long ago he ate, but how soon after eating was he injured. Any patient injured within an hour and a half of eating should be regarded as having a full stomach. Any child, particularly if injured at play after school, should be assumed to have a full stomach. Children are always eating, but frequently will not admit it because their parents have cautioned them against spoiling their supper.

Once the problems and hazards of full stomachs are realized, many things can be done to prevent or minimize complications. In a general way, the choices are to empty the stomach, use a technique under which the patient is not likely to vomit, or seal off the airway so that gastric contents cannot enter the pulmonary system. The safest and most obvious solution is to empty the stomach. Either the patient can be made to vomit or a tube can be passed. One often sees a physician or nurse going through the motions of aspirating the stomach with a #12 or 14 Levine tube and accomplishing nothing. The only satisfactory way to empty a stomach is to forget for a moment the patient's feelings and pass a large Ewald tube, with thorough aspiration and lavage. Most of the small particles can be cleaned out in this manner. In children and in unco-operative adults, this often is not possible. In these cases some other way of safely conducting the anesthetic must be done. There is a great temptation to rush into the emergency room with a syringe of Pentothal® or a can of ether and swing into action. This policy will be rewarded by serious trouble.

Before anesthesia is induced by any method on a patient with a potentially full stomach, several pieces of equipment must be available, laid out within reach, checked, and ready for use. These should be ready on any case, particularly the unprepared emergency. One all important item, which is so often left down the

hall, is a good suction machine. It should be checked and found to pull 15 lb. of vacuum. It should be fitted with an adequate rigid suction tip and should have catheters and adapters available. I repeat, check the suction, because so often when it was cleaned after the regular surgical schedule, the various joints and bottle tops were not reassembled in working order.

Appropriate sizes of laryngoscopes and endotracheal tubes should be laid out and ready for use. A wedge or mouth screw should be at hand. A tracheotomy set should be in the operating room or emergency room, not in central supply. It need not be open, but must be quickly available. When vomitus is aspirated, the vocal cords go into protective spasm, thus closing the airway. If the jaw is tight because of anoxia or light anesthesia, if the pharynx cannot be suctioned, and the laryngeal spasm cannot be teased open with intermittent pressure on the rebreathing bag, if an endotracheal tube cannot be passed even with force, than tracheotomy may be the only method of salvage. The pulmonary system also can be very effectively suctioned through a tracheotomy.

When these preparations are completed, turn to the job at hand, anesthetizing the patient. Perhaps the most satisfactory way of avoiding trouble from a full stomach is the use of some type of conduction block anesthesia, either regional or spinal. In this way the patient may remain awake and the hazard of induction of general anesthesia is avoided. He may become nauseated and vomit, either from his narcotic or because of a blood pressure drop under spinal anesthesia. But under conduction block, he has his pharyngeal reflexes and, with a little coaching, can expel the vomitus safely. If this pattern is followed, brachial block can be used on the upper extremity and spinal anesthesia can be used on injuries of the abdomen and lower extremity. If the anesthetist is experienced in its use, epidural anesthesia can be used. One important by-product is the sympathetic block achieved by these methods. This is most helpful in relieving vasospasm associated with crushing injuries of the extremities. These methods have their limitations, however. They generally are not useful in children who are too tense and unco-operative to allow the procedure to be done while awake.

Brachial block has its limitations in extensive injuries of the arm, particularly nerve and tendon injuries. The block does not last long enough and puts the surgeon up against an unfair time limit. Even with intracutaneous infiltration high on the arm, a tourniquet often is not usable with a brachial block.

In children, and in most head, neck, and upper extremity injuries, general anesthesia must be used. The anesthetist must be prepared to deal with food, swallowed blood, dislodged dentures, and forgotten chewing gum. It is possible to use some method under which regurgitation will be unlikely. In choosing an agent, the use of Pentothal is desirable because of the probability of a rapid, smooth induction with quick passage through the vomiting zones. Generally, intravenous barbiturates are a poor choice on children. However, they often can be used wisely on children, with careful attention to low dosage when there is a danger of regurgitation. Nitrous oxide or cyclopropane can be added when the third stage is reached.

I have the distinct impression that childhood is one of the most dangerous of all occupations. Children comprise a large percentage of all emergency anesthesia calls and the most common injury is fracture of the upper extremity. The stomach usually is full of soft drinks and candy, but a degree of safety can be obtained by inducing anesthesia with the patient on his right side. In most cases the whole procedure can be done in this position. It has two advantages. If the child should regurgitate in this position, his pharynx will drain. It is helpful to use a transparent mask, so that silent regurgitation is visible. Also, in this position the stomach contents gravitate away from the hiatus, and a full stomach is unlikely to discharge upward when muscle and sphincter tone is lost with anesthetic relaxation. I have found this method workable and effective. It also can be used in adults and often is the method of choice when the procedure can be done with the patient on his side.

The use of an endotracheal tube usually is associated with major cases; with head, neck, and chest anesthesia; upper abdominal work; or cases done in an unusual position. I think it is justified also in relatively minor repairs where the hazard of a full stomach is present. With

an endotracheal tube in place and its cuff inflated, regurgitation is no problem since the trachea is sealed and pulmonary aspiration cannot take place. This may seem to be overplaying the case a little, but safety is the prime consideration and greatly overshadows the few complications of endotracheal anesthesia. One of the safest methods of gaining control of the case is the insertion of the tube under topical anesthesia. The patient is awake and has fairly good control of his reflexes. A satisfactory alternate, if the patient is in good condition, is a rapid intravenous induction with a barbiturate and muscle relaxant. If the induction is quick and the tube promptly inserted, the patient will probably not have a chance to discharge stomach contents.

When a patient regurgitates during induction or at any stage of anesthesia when an endotracheal tube is not in place, one must work rapidly. I feel at this juncture the Trendelenberg position is of little value. Much of the regurgitation occurring under anesthesia is not an actual act of vomiting. It is due more to a loss of muscle and sphincter tone, with upward flow from a distended stomach. The Trendelenberg position just encourages more upward flow.

If possible, the patient should be placed on his side, or his head turned to allow the pharynx to drain. Manage somehow to suction the pharynx and rapidly insert an endotracheal tube, all at the same time. The tube will guarantee an airway and will prevent further aspiration. If the jaw is rigid, a rapidly acting relaxant such as succinylcholine is helpful in getting it open: so is a mouth screw or several layers of tongue blades. The loss of a tooth or two during this life saving procedure is of no moment. Even with a tight jaw, a rigid tonsil type of suction tip can be placed behind the last molar and into the pharynx. If the pharynx is filling rapidly and the jaw cannot be opened for passage of an endotracheal tube, then an immediate tracheotomy should be done. During this crisis, when the vocal cords may be in protective spasm and the airway completely closed, valuable time can sometimes be bought by transtracheal insufflation of oxygen. A 15 or 14 gauge needle is inserted through the cricothyroid membrane or between tracheal rings, and 100% oxygen is injected by syringe or by tube connection. This

procedure may mean the difference between success and failure.

Even with the protective closure of the larynx, the patient has probably aspirated stomach contents into his pulmonary system. The trachea and major bronchi should be thoroughly suctioned with a suitable catheter passed through the endotracheal or tracheotomy tube. Bronchoscopy should be considered, and probably should be done. My experience has been that catheter aspiration does a good job and leaves practically nothing for subsequent bronchoscopic aspiration. Needless to say, once a good airway has been established and the tracheobronchial tree cleaned, oxygen must be carried to the alveoli. If the patient's respirations are not effective, then oxygen must be moved in by the anesthetist with the rebreathing bag of the anesthesia machine.

The patient with the riddled face or mouth presents many of these same problems of gaining quick control over the airway, and of preventing aspiration. These cases occur in industrial explosions, gun accidents, tire explosions at filling stations, attempted suicides, and in patients who have been thrown through windshields. The face and mouth are torn and riddled and the pharynx is filled with blood. Endotracheal anesthesia is necessary. Insertion of the tube under topical anesthesia usually is out of the question; rapid absorption of the drug through the denuded surfaces is likely to produce a reaction. Usually a quick induction with an intravenous barbiturate and muscle relaxant is the only choice, with prompt insertion of the tube before aspiration of blood and vomitus can occur. If one gets into trouble, there is little chance to apply a mask with oxygen to the macerated face and a tracheotomy set should be ready.

The automobile age is supplying us with an increasing number of patients who have a head injury and associated trauma, usually fractures. These cases often are problems in timing. There is no question about the patient who is unconscious from a head injury. He should be left alone except for neurosurgical procedures. There are few other surgical problems so urgent that they must be done on a patient unconscious from a head injury. I believe local anesthesia or regional block would be the only acceptable methods in the circumstances.

There are borderline cases, however, where cautious judgment is required. The patient may have been unconscious or irrational for several hours, but over a period of time has improved and regained normal mental and neurological status. Or he may have been stunned and confused, and over a period of hours has returned to normal. In either case his associated injuries may now require attention. I think the anesthetist should encourage as much delay as possible. This is advisable partly to make sure no signs of delayed intracranial bleeding develop, and partly to stall for time and gain as much improvement as possible. Then, I think spinal, local, or regional block should be used if at all possible. These presumably recovered head injuries are unstable under general anesthesia; their response is unpredictable and they are very easily depressed. Anoxia and carbon dioxide excess are producers of cerebral edema, and should be avoided. The patient should be teased along with small amounts of anesthetic and watched closely for respiratory depression.

Many of these same principles apply in the intoxicated patient. The case should be delayed, if at all possible, until he becomes sober. If he must be repaired immediately, a general anesthetic usually is necessary except for superficial lacerations. A drunk who is constantly trying to return to the tavern and is demanding a cigarette, a drink, or a chance to vomit is a poor subject for conduction anesthesia. If he is put to sleep, it should be borne in mind that he is already full of an effective general anesthetic. He will be unstable, will have altered responses, and should be carried along cautiously with minimal amounts of drug. An intravenous induction is almost a must, to anesthetize an unco-operative patient. Following induction a gas, such as cyclopropane, probably is preferable.

Every anesthetist is plagued from time to time with the problem of the injured patient who has lost a large amount of blood, is continuing to lose blood, is in varying degrees of shock, and must be operated on. This problem usually arises in chest or abdominal injuries. Most other bleeding can be stopped by first aid measures and the patient can be placed in good shape for anesthesia and surgery by blood replacement.

Under ideal conditions, the shocked patient should be brought to a normal blood volume before emergency surgery. When unlimited supplies of blood are available, this can be done. The patient with abdominal bleeding, a pulse of 110, and a blood pressure of 90/50 can be pumped full of blood and can be placed in good condition for surgery. Unfortunately, this is not often possible, particularly in the community hospital with a small blood bank. Even with the help of the state police, large amounts of blood are several hours away. Here, one must decide whether to use the limited supplies of blood now to try to get the patient into good condition or to take him as he is and save the blood for stabilization after bleeding has been stopped. Vasopressors such as Levophed,[®] and plasma expanders such as Dextran,[®] are helpful in squeezing by with limited blood supplies. However, they are temporary, do not carry oxygen to the tissues, and at best are only a partial solution to the problem.

If the patient is in extremis, usually there is no choice but to try to improve him. But if he is in any kind of acceptable shape, I think it is often better to take him as he is, adapt the anesthesia to his condition, and correct his bleeding injuries surgically. Then the available blood can be used for stabilization before the patient leaves the table.

The ruptured spleen is fairly common, and is a good example. Even though current steering wheels are collapsible and have no vertical spoke, the ruptured spleen seems to be a by-product of the automobile age. I have seen ten pints of blood given to a ruptured spleen before surgery, with no visible results. I have seen similar patients taken immediately to the operating room, where they were prepped and draped before induction of anesthesia. An endotracheal tube was inserted under topical anesthesia and the patient was given cyclopropane and carried in a very light plane. The surgeon opened rapidly and quickly placed a hemostat on the splenic pedicle. Then the nurses mopped his brow while two pints were pumped in, and he was able to complete the procedure in an orderly manner on a patient out of shock and almost stable.

If worst comes to worst in dealing with the shocked patient, the only comforting thought may be that the job usually can be done under local or field block anesthesia. Often this is the

best choice. The shocked patient requires little anesthesia, and in many cases satisfactory results can be obtained in the thorax or abdomen by injecting the appropriate intercostal nerves at the angle of the rib and by reinforcing this with a subcutaneous and intracutaneous field block around the site of the operation. Even if this method is not completely effective, the mutterings of the surgeon and an occasional grunt from the patient are certainly more tuneful than the sobs of his widow.

Usually, in a patient with a low blood volume, spinal anesthesia is a poor choice. Reflex vasoconstriction may be the only thing holding him together. When vascular tone is removed over a substantial part of his body by spinal anesthesia, he may collapse and may not respond to Levophed or any other vasoconstrictor.

If a general anesthetic seems advisable on the shocked patient, cyclopropane is the best choice. It depresses cardiac output very little in reasonable planes of anesthesia, it makes possible a high percentage of oxygen, and induction and recovery are rapid. Since it is a strong respiratory depressant, breathing must be assisted with pressure on the rebreathing bag. Intravenous barbiturates, if used at all, should be for induction only. They depress cardiac output specifically and are circulatory depressants generally.

Whatever is used on the shocked patient, very little is needed. The patient should be carried in a light plane and relaxation should be provided by the smallest possible dose of one of the relaxants. I prefer succinylcholine: its action is short and it has little effect on the circulation.

The abdominal or thoracic injury, in critical condition from blood loss and trauma, usually is taken seriously. Everyone is on his toes, aware that the situation is grave and the patient receives the "full treatment of the temple." It is unfortunate that the same level of care is not extended to the relatively minor injury. One is frequently beckoned into the emergency room to give "just a little Pentothal" or to "pour a little ether." "It won't take much," the operator says, "I just want to snap this arm back." In my opinion, this is the signal to check on when the patient was premedicated and when he ate, and then to assemble within reach a suction machine, an anesthesia machine, and the proper

sizes of endotracheal tubes. Then proceed to do the job right, with the thought in mind that this patient could die. I have never been sorry for overplaying a case but I have regretted taking short cuts. I do not believe that a Hollywood production, complete with electronic monitoring,

must be made of every case. But I do believe that there is no such thing as a minor anesthetic and that the most dangerous phrases in anesthesia are "Just a little Pentothal — it won't take much."

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Medicine in Russia

EDWIN S. HAMILTON, M.D., KANKAKEE

THE Public Health Service approached Gunnar Gundersen and me last summer about going to Russia to see how the Soviets teach and practice medicine. If we went, the State Department would arrange it. We decided to go, not officially but as a couple of country doctors. If you go officially, everything is scheduled and you have no opportunity to do the things you want to; by going as individuals, but with the blessing of the State Department, our government could smooth the way through official circles in Russia. This was done and we spent about 12 days in Moscow, Leningrad, Kiev, Lvov, and a few other areas.

My remarks are based on information received from the Minister of Health and from outstanding physicians to whom we were referred as well as from the Dean of one of the two medical schools in Moscow. I cannot vouch for its authenticity and am repeating only what I was told. I made notes as we went along so that I would have everything down in black and white.

There are 200 million people in Russia and 340,000 physicians and 80 medical schools. Moscow — with a population of about 6 million — has two, called Number One and Number Two. We spent an afternoon with the Dean of Number One and he told us that all the medical schools in Russia have identical curricula. The

two Moscow schools have separate faculties and the enrollment of the two schools at present is 4,020 students.

The course takes six years. Five hundred students are admitted annually. The first year they lose five to 10 per cent but after that, practically no student fails. Up until two years ago, 80 per cent of the medical students were women, a situation that has persisted since World War II. They are trying to increase male enrollment and 49 per cent of last year's incoming classes were men.

The faculty of each Moscow medical school is between 250 and 300. Almost every large city in Russia, all the way across to Siberia, has a medical school. They select medical students from the upper five per cent of university students who make straight 5's throughout (they grade 1, 2, 3, 4, and 5), without examination. If the scholastic average is four 5's and one 4, a special examination is given in Russian, a foreign language, chemistry, and physics. Students who pass are then eligible for medical school. They think the reason so many women go into medical work is because they are better students in the secondary schools, probably due to lack of outside interests.

Students who fail the special examination, particularly women, go into a hospital and be-

come what they call a medical sister, or nurse. These women could be called high grade nurses and they stay in the hospital for three years. If their work has been satisfactory they can take the examination again for entrance to medical school. Many do so but since there are about 10 applicants for every opening, the medical school authorities have a wide choice.

The schools are having difficulty teaching anatomy. I was surprised to learn that cadavers are not easy to obtain. The pro-sector method is used in teaching anatomy; one man demonstrates to 15 or 20 students and the same cadaver may be used over and over again. They have an idea that after life has left a body, it is not to be used for dissecting purposes. As a result, their students learn anatomy without ever touching a dead body.

When the students finish medical school, the top 5 to 10 per cent are given an opportunity to take an internship or further education. But the majority go out into the rural areas to practice medicine. I asked if there was any possibility that these graduates were told where to go and they said: "No. Nobody is instructed where to go. They have a choice." I asked what this meant and was told: "If you graduate and have not made yourself eligible for postgraduate work they give you a choice of Archangel, Vladivostok, or Smolensk. You can go to any of these places but you have to go to one of the three."

This is how they distribute their graduates and the applicant does not have much choice. But applicants who go to Archangel, Murmansk, or the extremely cold north have their salaries doubled as a recompense. All Russian physicians work for the state and the average salary is 800 rubles a month (about \$200), whether they work in small communities or larger towns doing general practice or clinic work. The man or woman who does postgraduate work has to study in a clinic under some outstanding man.

There are three classes of medicos. First comes the physician, a man or woman who has graduated from medical school. He is not called a doctor and doesn't get a certificate as a doctor but as a physician. I was glad to have this explained because for 15 or 20 years I have been working on the medical examining board that licenses refugees and have come upon the word physician many times. It was difficult for me to understand how a man could be a physician and not

a doctor. Apparently this is a European system. The word doctor is given only under special circumstances and after special training. The process is slow and tedious. First the medical student becomes a physician. Then, if he desires to become a higher-up, and shows the aptitude for it, he becomes a candidate — a candidate to become a doctor. He remains in this status for a varying length of time, working under some outstanding doctor for three to 10 years. Gradually he becomes proficient enough to take a special examination and if he passes, becomes a doctor.

There is no shortage of physicians in Russia but my impression is that there — as elsewhere — the distribution could be improved. Big cities like Moscow have a surplus and there is a shortage in the hinterlands but, as I said, special inducements are given to physicians to go to the less desirable rural areas.

One whole afternoon we talked with Dr. Maria Gruschenov, the Minister of Health of USSR a well educated, talented, charming woman in her 50's. She treated us with every courtesy and promised us everything we asked her. We didn't get to do all these things. Through her executive assistant, she promised that we would see hospitals in rural areas and a few co-operative farms. I grieve to tell you that every time we were ready to go something went wrong: the man in charge was called away or the weather was bad. This gives you a good idea of Russia's methods — they won't refuse you anything but end up by showing you exactly what they want to and no more. The Reds are just as curious about us as we are about them. We stirred up more interest there than we have in any other part of the world and I don't know if we entertained them more than they entertained us.

One day we went out to the Institute of Medicine and spent the morning with Professor Meshnikov, who has all the attributes of a gentleman and a physician. We were met by him and his assistant, who spoke excellent English. Meshnikov showed an acquaintanceship with literature you seldom find among Americans. He reads French, German, and English and is conversant with all the work going on in research, particularly in arteriosclerosis. They had the stage set for us and were given a magnificent performance.

Dr. Meshnikov showed us hundreds of aortas

of rabbits that had been fed in various ways. He also had some beautiful slides to show what had happened. He believes that vitamin D is one of the chief causes of arteriosclerosis and that vitamin C reverses the process. Alcohol in moderate amounts has no effect on the condition but vigorous exercise is frowned upon. Excitement aggravates the condition and smoking is bad because nicotine constricts the vascular system. (I seem to remember that he was smoking cigarettes at the time.)

Professor Meshnikov made a fine impression on us. He is as high grade a medical man as you could find anywhere. He has never been to the United States but wants to go to Boston next year to attend a conference on metabolism. He has a hospital of about 200 beds, with 14 to 16 patients in each ward. The beds and furniture are old and so is the hospital but it is clean and well run. I don't know what it was used for before; many of the palaces the Soviets took after the revolution have been made into hospitals or museums.

The nursing staff was adequate and in medical staffing they had the physicians, doctors, fifth and sixth year medical students including the before mentioned medical sisters who failed in the examinations and were waiting one to three years. There was no shortage of help because everyone works. If you don't, you don't eat and have to be very ill to get out of it. The laboratory equipment was quite good though some of it was old but they have modern electrocardiographs, basal metabolism equipment, plenty of microscopes, and oxygen containers in the wards. The operating rooms were not built for this purpose and the equipment is not as good as in our modern hospitals. In fact, I did not see any hospital to compare with Chicago Wesley or Passavant as examples.

Next morning we went to Dr. Igorov's clinic, which is a neurosurgical hospital. Again we met a clever, well educated, cultured physician. This hospital has about 200 beds, similar to the other one but better. Four operations were going on the day we were there. Three of the operators were women. One operation was removal of a tumor of the cerebellum, another of the cerebellum, and another, a tumor of the eighth nerve, which was done by the Professor. As usually happens when you try to give a special demon-

stration, he ran into a mess. The patient was a bleeder and the surgeon tried to tie off the sinus. After the patient lost considerable blood he was transfused vigorously and the surgeon put in a pack and backed out as many a man has had to do. He didn't get excited or apologize too much but said these things happen occasionally and I agreed.

They also are doing research and Dr. Igorov took us through this department. One of their projects is localization of brain tumors and another is a study of circulation through the meninges. Again, the stage was set and we were shown only what they wanted us to see. They have done some clever work and have a new idea on where the cerebro-spinal fluid is formed and how it circulates through the meninges. They have beautiful specimens with a kind of stain I have not seen before, showing the ducts as well as everything else. This was quite a novelty to me because when I went to school and studied the meninges in pathology and histology, I never saw anything like this.

I am satisfied that there are some talented doctors over there who are conversant with the research being done all over the world. I know we were introduced to the best. Later, in Istanbul, I had an opportunity to talk to Dr. Raymond Allen, Chancellor of the University of California at Los Angeles. His trip through Moscow followed ours and he was taken through the same two hospitals and had the same guide. I suspect that all visiting firemen are shown the same thing.

We tried to get into some other hospitals but were unable to. When we got to Kiev, they promised to take us to the polyclinics and a hospital but kept stalling. We kept insisting and finally, one afternoon, they took us on a 20 minute drive past the outside of two polyclinics and were told that's where they were. We had to take their word for it because we did not get inside.

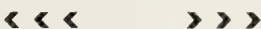
When you become ill in Russia you go to the polyclinic, which is an open clinic. If you are too sick to get there, they send out a physician of their own choice. If you get into the polyclinic you don't ask for a specific doctor; they assign one and you have no choice. If it is necessary to go to the hospital they tell you which one to go to and put a member of the house staff on your case. While you are hospitalized you are allowed

one visitor a week on Sunday afternoon, for an hour and a half or two hours.

You can't get more than an impression on such a short tour but the general feeling we had is that their medical care does not compare with ours. They do not have our facilities, methods, or well trained physicians. They have some excellent men and some places where excellent medicine is practiced but nothing comparable to the United States.

We went to Turkey which I believe has a population of about 20 million. There are only three medical schools in that country — at Istanbul, Ankara, and Salonica. The medical course is six years (two years of premedical and

four of medicine). The majority of graduates get an internship. There are 3,000 students at the Istanbul school; they get 500 students a year and graduate 500. If you want to specialize, the method is much like that in our country: four years of surgery, medicine, or ophthalmology. Pathologists can make it in three. A great percentage of their postgraduate work is obtained abroad. Many go to Zurich or Geneva and some come to the United States to Mayo's or other large clinics. The president of the World Medical Association, a successful Istanbul physician, has two sons. One is now at Mayo Clinic, taking surgical service and the other expects to go to Boston next year to study pediatrics.



Frauds and more frauds

From the mailbox to the TV set the American people are being honied and hokumed as never before with an amazing variety of cure-alls. The Postoffice Department recently issued widespread warnings on the common mail order frauds in order of their popularity: dietless reducing schemes; sure cures for cancer, arthritis, skin trouble, baldness, lost manhood, bust developers, and atomic medicines. The Federal Food and Drug Administration, long a police dog on patent medicines, is taking an especially dim view of the door-to-door peddling of vitamin and mineral products. Several state and national pharmaceutical officials have gone so far as to

suggest banning radio and TV commercials for a host of products for which, directly or by implication, fantastic claims are made. One of the latest preparations involves "the wonder food of the honey bee." FDA authorities report seizures of quantities of this royal jelly with accompanying literature to the effect that it is a natural remedy for growth, reproduction, rejuvenation, and longevity and a myriad of bodily ailments. In other words, this is the long sought fountain of youth cocktail. Radio, TV, and direct mail are bad enough but most deplorable is the bewitching approach of the door-to-door-salesman. *Editorial. Honey and Hokum. Wisconsin M. J. Aug. 1957.*

Continuous Long Term Anticoagulant Therapy After Acute Myocardial Infarction

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EIGHTY-NINE patients who survived one or more attacks of acute myocardial infarction were continued on dicumarol for a period of three months to more than five years in an effort to determine the possible value, safety, and practicability of the use of long term anticoagulant therapy in ambulatory private patients.

Each patient had received dicumarol as a hospital patient during the acute attack of myocardial infarction and the anticoagulant was continued after hospital discharge. Twenty-three patients discontinued the treatment for various reasons, 66 remained on dicumarol throughout the study. After the maintenance dose had been established, prothrombin time determinations (Quick method) were done twice a week to once every two weeks. The frequency of the tests depended upon the stability of the prothrombin time. Attempts were made to keep the prothrombin activity at 20 to 40 per cent of the normal control. All determinations were made in our office laboratory.

During the period of study there were 10 deaths among 66 patients who continued treatment (mortality rate 15.1 per cent). All deaths were due to cardiovascular causes. Five of the 10 occurred within six months of the onset of the acute attack of myocardial infarction preceding treatment. Table 1 indicates the number of deaths and mortality rate in each six month period for more than 48 months.

A total of 12 probable recurrences occurred in 10 of the 66 patients (15.1 per cent) con-

tinuing treatment. Four patients who died suddenly were considered to have had a recurrent myocardial infarction. There were five non-fatal recurrences. Three other patients died following proved recurrences. The most recent prothrombin time before recurrence or sudden death was below 40 per cent in seven, above 40 per cent in four, and unknown in one. The last prothrombin time determination before recurrence or death in those below 40 per cent had been from one to 13 days previously.

Fifteen patients had recurrent attacks before dicumarol was administered on a long term basis. Two discontinued therapy and three died while receiving dicumarol. The mortality rate in the recurrent group remaining under treatment was 23 per cent and in the group receiving dicumarol after their first infarct, 14.8 per cent.

Twenty-three patients discontinued treatment. Anticoagulants were discontinued because of hemorrhage of varying degree in 11 patients. Since August, 1956, none has been discontinued permanently because of hemorrhage. The present procedure is to control hemorrhage with vitamin K1, and then resume administration of the anticoagulant. Five of the patients discontinuing

TABLE 1
MORTALITY RATES OF TREATED GROUP

Time elapsed after acute attack	Number Died	Mortality Percentage
3-6 months	5	7.6
6-12 months	2	3.0
12-18 months	1	1.5
18-24 months	0	0
24-30 months	0	0
30-36 months	1	1.5
36-42 months	0	0
42-48 months	0	0
48 months or more	1	1.5
TOTAL	10	15.1

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TABLE 2
SOURCE OF HEMORRHAGE

Hematuria	8
Ecchymosis	5
Hemorrhoids	4
Epistaxis	3
Mouth	1
Hematoma	1
TOTAL PATIENTS 89	
Total Patients Bleeding	15 (16.8%)
Major Bleeding	4 (4.5%)
Minor Bleeding	11 (12.3%)

treatment died of cardiovascular causes, one two days and another 13 days after discontinuing anticoagulants. The remaining three died from seven to 18 months after discontinuing treatment. All but one had been on anticoagulant therapy for six months or longer before treatment was stopped.

Hemorrhage of varying degree occurred in 15 of the 89 patients, or 16.8 per cent (Table 2). This was slight as a rule and included hematuria, epistaxis, rectal bleeding, ecchymotic areas, and bleeding of the gums. Severe bleeding occurred in four (4.5 per cent). No deaths resulted from blood loss or direct effects of hemorrhage. One patient who had been on anticoagulants two years died suddenly two days after treatment with vitamin K1 for control of hematuria, suggesting the possible danger of a rapid return of the prothrombin time to normal level. The incidence of hemorrhage in groups of patients on long term anticoagulant therapy has been reported by others as varying between 25 per cent and 56 per cent^{1,2,3}.

Although the outlook for patients recovering from an acute attack of myocardial infarction is not as gloomy as it was formerly thought to be, the prognosis must be considered serious. Bland and White⁴ reviewed the 10 year outcome of 200 cases of coronary thrombosis; the mortality rate of those surviving the first four weeks was 18.5 per cent during the first year, 10.5 per cent the second year, 10.5 per cent the third year, and 6 per cent the fourth year (four year mortality rate of 46.5 per cent). Fifty of Bland and White's patients survived more than 10 years. Levine and Rosenbaum⁵ reported the ultimate prognosis of a series of patients recovering from an initial attack of acute myocardial infarction. One hundred and one

patients were followed to death, 25 per cent dying within the first year, 50 per cent within two years, and 75 per cent within five years. The remainder lived five to 12 years. However, 271 patients were still living at the time of the last followup but the authors predicted from previous experience that if the living patients were followed until final outcome, the average survival period would not have been lengthened. Katz, Mills and Cisneros⁶ reported on survival after recent myocardial infarction and stated that one-fourth would be dead at the end of two months, one-half at the end of a year, two-thirds at the end of three years, and four-fifths at the end of five years. The actual mortality rate of the 272 surviving the first two months was 8.1 per cent for the remainder of the first six months, 8.4 per cent the second six months, 5.5 per cent the second year, and 28 per cent for the first four years. Sigler⁷ reported 1,208 patients with coronary thrombosis having a 23.5 per cent mortality rate in the period from two months to five years. Smith⁸ reported the length of life after myocardial infarction in 100 patients. The immediate mortality was 15 per cent; 10 per cent died between the second and twelfth month, 4 per cent between the first and second year, and 9 per cent between the second and third year. The mortality rate of those dying between two months and four years was 25 per cent. Weiss⁹ in a 10 year study of the prognosis of 211 cases of acute myocardial infarction living more than two months reported 8 per cent mortality the first year, 8 per cent the second year, and 15.6 per cent for the third and fourth years (total mortality rate from two months to four years of 31.6 per cent).

The mortality rates in reported groups of patients recovering from acute coronary thrombosis and receiving long term anticoagulants seem significantly lower than in those reported above who did not receive such treatment.

Suzman, Ruskin, and Goldberg¹⁰ reported mortality rates of 7.3 per cent in a group of 82 patients receiving long term anticoagulant therapy for three to 76 months, compared to 33 per cent in a group of 88 controls. They concluded that in patients in whom the presenting attack was the first and mild, and who had received short term anticoagulant therapy, the outlook was favorable in respect to subsequent

TABLE 3
MORTALITY RATES FOR FOUR YEAR PERIOD

Time elapsed after acute attack	No Anticoagulant Therapy				Anticoagulant Therapy		
	B.W.	K.M.C.	S.	W.	K.D.S.	C.M.B.K.	
					Simple Infarct	Recurrent Infarcts	
3-12-months	18.5	16.5	10	8	4.2	8.0	10.6
1-2 years	10.5	5.5	4	8	1.4	0	1.5
2-3 years	10.5		9		2.8	2	1.5
3-4 years	6.0	6.0*	2	15.6*	0	2	0
Total							
4 years	45.5	28	25	31.6	8.4	12.0	13.6

*Includes third and fourth years

B.W.—Bland and White

K.M.C.—Katz, Mills, Cisneros

S.—Smith

W.—Weiss

K.D.S.—Keyes, Drake, Smith

C.M.B.K.—Cannady, Moe, Buser, Kusewitt

infarction, cardiac failure, and death irrespective of whether or not anticoagulant therapy was continued indefinitely. However, in severe cases with previous infarction the mortality rate in the treated group was only 14.3 per cent compared to 66.6 per cent in the control group.

Keyes, Drake, and Smith² presented evidence of the value of long term anticoagulant therapy in myocardial infarction. In a group of patients having had single infarcts (186 not treated and 71 treated) the rate of death of the controls was three times greater than the treated group. In those having recurrent infarcts before starting long term anticoagulant therapy (48 controls and 50 treated) the mortality rate was five times greater in the untreated cases.

The results in our series of treated private patients is not as dramatic as those reported by Keyes and associates. The mortality rate in our group was considerably higher in the first year, five of the 10 deaths occurring during that period. The mortality rate of 13.6 per cent in four years is also higher than that reported by Keyes, Drake, and Smith² and Suzman, Ruskin, and Goldberg¹⁰ but less than in the series of cases reported before the use of anticoagulants (Table 3). The rate of recurrences of 15.1 per cent in four years is much less than the 50 per cent within two years estimated by Nichol and associates¹ for those not receiving anticoagulant therapy.

SUMMARY

Continuous long term anticoagulant therapy following recovery from one or more acute at-

tacks of myocardial infarction is a practical and safe procedure in private ambulatory patients, provided the patients are carefully observed and prothrombin time determinations are done at regular intervals. The hazards of serious hemorrhagic complications are not great. The majority of patients do not object to the inconvenience of regular examinations and frequent prothrombin time determinations. Statistical studies suggest that long term anticoagulant therapy following recovery from one or more acute attacks of myocardial infarction decreases the incidence of recurrences and lengthens life expectancy.

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Current Trends in the Management of Adenocarcinoma of the Endometrium

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THE anatomic extent of the malignancy and the method of therapy are the critical clinical factors mediating survival in adenocarcinoma in the body of the uterus.

Tables 1 and 2 illustrate the relative importance of these factors in determining survival in this neoplasm. During the period of 1935-1955, 225 cases of corpus carcinoma were treated at the Chicago Lying-in Hospital. A total of 185 of these cases are eligible for the determination of 5 year survival rates. The malignancy was confined to the body of the uterus in 77.6% of these patients. The 5 year survival rate in this group was 72.5%. In the 22% where the malignancy had extended beyond the uterus the 5 year survival rate was 2.6%. Of the total 5 year survivals, 98.5% occurred in the first group. Hence, the anatomic extent of the malignancy is the most important single factor mediating survival in this neoplasm.

If the anatomic extent of the malignancy is favorable, this neoplasm can be managed with varying degrees of success by surgery, irradiation therapy by or, a combination of these two methods.^{1,6,12,15,17,22,24,25}. In this specific group of cases surgery, employed either alone or in combination with radium therapy resulted in an 85% 5 year survival rate. Irradiation therapy, when it was employed as the sole method of therapy, resulted in a 45% 5 year survival rate. In those instances where the malignancy had extended beyond the uterus, irradiation therapy was totally ineffective in our hands while surgery afforded a means for salvaging 12.5% of these patients. Hence, surgery is the critical

TABLE 1
METHOD OF TREATMENT, EXTENT OF
MALIGNANCY AND 5 YR. SURVIVAL

225 Cases			
5 YEAR SURVIVAL—PERCENT			
	Confined to Corpus	Spread Beyond Corpus	Total
Surgery	85	12.5	72.2
Radium & X-Ray ...	45	0	26.2

TABLE 2
EXTENT OF MALIGNANCY

225 Cases	Confined to Corpus	Spread beyond Corpus
Per cent of all Cases	77.6	22.4
Five Year Survival Rate Per cent .	72.5	2.64
Per cent of all Five Year Survivals	98.5	1.50

therapeutic factor mediating survival in this malignancy and must be employed in the planned therapy of this neoplasm if maximum 5 year survival rates are to be achieved.

The definitive treatment of corpus carcinoma should be planned. Numerous studies have demonstrated that a preconceived therapeutic plan is essential for the achievement of a maximum 5 year survival rate.^{1,3,5,19,22,23,25}

Planned therapy is based upon a histologic diagnosis of malignancy, upon an estimation of the extent and localization of the lesion and upon the determination of the size and consistency of the uterus. This is accomplished by a bimanual pelvic examination and by the fractional curettement of the uterus. There is no satisfactory proof that cervical dilatation accomplished by means of hollow, open-end dilators is a significant factor in the dissemination of uterine malignancy. On the other hand, there is abundant evidence that the omission of curet-

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tage in the presence of abnormal uterine bleeding results in inadequate therapy.

A complete hysterectomy and bilateral salpingo-oophorectomy has constituted the basic method of therapy for endometrial carcinoma.^{1,3,4,5,22,24,25} To prevent vaginal vault implants, and intra-abdominal dissemination, the cervix is customarily occluded prior to laparotomy, and the cornual ends of the tubes are blocked before the uterus is manipulated. To reduce the incidence of vaginal vault metastasis in this malignancy it is common practice to excise a 2 cm. portion the the vagina.

In recent years, this basic surgical approach has been expanded to include a Wertheim procedure and a pelvic lymphadenectomy when local extension or extrauterine spread is evident.^{2,3,4,18,22,25} This concept of adequate surgery in the presence of corpus carcinoma does not represent the maximum surgical effort which can be employed in the treatment of this malignancy. This approach is based upon the classic view which holds that the majority of those neoplasms which are grossly limited to the fundus of the uterus are of low biological malignancy. Consequently, they metastasize relatively late in the course of the disease. When metastases do occur, it is the contention that they spread mainly along the lymphatics accompanying the ovarian veins, with the result that the ovaries and periaortic nodes are primarily involved. It is thought that spread to the parametrium and pelvic lymph nodes is late and is usually preceded by extrapelvic metastases. Hence, the removal of these tissues can have little influence upon survival rate in endometrial carcinoma of limited anatomic extent and is advisable only when the myometrium is extensively invaded, the malignancy has extended to the isthmus or endocervix, or when gross pelvic metastases are evident.

In recent years, data has been presented which is at variance with this concept of metastatic corpus carcinoma.^{2,10,13,16} Some observers have found that the incidence of lymph node metastases in operable corpus carcinoma was 4 to 6 times greater than the 5% incidence which has been thought to obtain in this malignancy and that when the pelvic lymph nodes were involved, extrapelvic metastases were relatively infrequent. It has been suggested, there-

TABLE 3
EXTENSIVE SURGERY—FIFTEEN CASES
12% OF SERIES

Pelvic Lymph Node Metastases	6.7%
No Pelvic Lymph Node Metastases	92.3
Myometrium Extensively Involved	53.2
Gross Ovarian Metastases	20.0
Inguinal Node Metastases	6.7
Parametrial Metastases	6.7
Endocervical Involved	6.7
Isthmus Involved	6.7
Operative Mortality Pul. Embolus	6.7
Eligible Five Year Survival	46.0
Five Year Survival	14.0
Three Year Salvage	45.0

fore, that a Wertheim procedure and a pelvic lymphadenectomy be employed as the basic method of therapy in the treatment of this malignancy. These observations have not been substantiated by other contemporary workers and are contradicted by the high survival rates which have resulted from the employment of a simple complete hysterectomy for the treatment of fundal carcinoma of limited anatomic extent.^{3,4,15,22,24,25}

Current data indicate that the survival rates in endometrial carcinoma have not been increased significantly by extensive surgical procedures.^{1,3,15,18,22,25} In addition, the routine employment of a Wertheim procedure with its relative high morbidity and mortality rates, is obviously impractical because of the high incidence of poor surgical risks inherent in the age group in which the majority of endometrial carcinomas occur. These latter views are substantiated by our experience with a limited number of patients in whom extensive surgery was done on a selective basis. (Table 3) The incidence of pelvic lymph node metastases in this group was 6.7%. The 5 year survival rate was 14%, and the 3 year salvage rate was 45%. This extensive surgery resulted in a 6.7% operative mortality rate which was approximately 12 times greater than the mortality rate which we have had with a simple complete hysterectomy. Although this surgery was carried out on a selective basis because of intrauterine extension or because of extra-uterine spread, it was of apparent value in only 2 of the 15 patients in which it was employed. Of these two patients, one died as the result of a pulmonary embolus,

Available data therefore justify the continuation of the current practice of employing a simple

complete hysterectomy as the basic method of therapy for the treatment of fundal carcinoma of limited anatomic extent.

The pre-operative use of intracavitary radium affords a means for increasing the survival rate in fundal carcinoma.^{1,3,4,9,11,13,19,22,25} The advisability of employing this combined method of therapy in every operable case of this malignancy, is controversial. However, in those instances where the uterus is significantly enlarged, abnormally soft, or where a fungating tumor mass is present, 5 year survival rates have been increased by this therapy.^{1,3,22,25} In our experience a modification of Heyman's packing technique has given superior results^{11,17}. With this technique, the uterus is filled with multiple small sources of radium and from 5,000 to 6,000 mg. hours of radium are administered. External irradiation is not employed and a laparotomy is done approximately 4 weeks after the completion of the radium therapy.

In our series, the combined method of therapy in the group of patients in whom the malignancy is limited to the fundus has resulted in an 84% 5 year survival rate. This is in contrast to an 86% 5 year survival rate which was present in a similar group of patients when surgery alone was employed. Hence, we have been unable to demonstrate the superiority of the combined method of therapy over surgery alone, although current data leave little doubt that the combined method of therapy has increased the survival rate in selected groups of patients.^{1,22,25}

When irradiation must be employed as the sole method of therapy in the treatment of this malignancy, the best results are obtained through the combined use of intracavitary radium and external irradiation.^{1,9,13,19,21,22,23,24}

A small but significant number of individuals in this medically inoperable group must be denied external radiation because of its previous use for benign conditions or because of obesity. In treating these patients we found that the accepted dose of intracavitary radium failed to eliminate the malignancy in every instance. There were local recurrences of the malignancy within one to three years and further treatment consisted of paliative radium therapy. As a result, it was decided to recurette all future patients in this group at three month intervals and

to administer supplemental amounts of radium until the curetting presented no histologic evidence of neoplasia or until the patient had received the maximum dose of intracavitary radium which we thought she could tolerate. During the last 12 years we have treated 15 patients in this manner employing two or three supplemental applications of intracavitary radium with a total dosage of from 8,000 to 9,000 mg. hours. No major irradiation damage has occurred as a result of this therapy. Seventy-two percent of these patients are eligible for the determination of 5 year survival rates. Their absolute 5 year survival rate is 72% and the survival corrected for those who died of disease unrelated to their malignancy is 78%.⁵

The 10 to 12% incidence of vaginal vault recurrences which follow hysterectomy has a significant influence upon mortality in operable corpus carcinoma. These recurrences result from lymphatic spread or from the spill of cancer cells at the time of surgery. The fact that the prophylactic post-operative use of intravaginal radium has reduced this incidence of vaginal vault recurrence to 2 to 3% represents an important practical advance in the treatment of this malignancy^{7,15}. It is our practice to administer 2,500 mg. hours of radium by means of a vaginal plaque containing 55 mg. of radium on the 10th post-operative day. There has been no irradiation injury and no evidence of recurrence in those patients who have received this prophylactic therapy.⁵

SUMMARY

Available data indicate that the anatomic extent of the malignancy, rather than the magnitude of the surgery, is the critical factor mediating survival in adenocarcinoma of the uterus, and that the inability to perform a simple hysterectomy and a bilateral salpingo-oophorectomy because of medical contraindications to surgery, rather than the failure to do a routine radical procedure is the major factor influencing the overall survival rate in corpus carcinoma of limited anatomic extent. Hence, the policy of performing extensive surgery only on a selective basis is justified.

Pre-operative radium therapy affords a means for increasing the survival rate in this malignancy, and the prophylactic post-operative use of intravaginal radium constitutes a significant,

current, practical advance in the treatment of this malignancy.

Our experience with a limited number of cases of medically inoperable endometrial carcinoma of favorable anatomic extent suggests that the 5 year survival rate can be significantly increased in this specific group of patients by the administration of supplemental amounts of intracavitary radium when periodic recurrences demonstrate the presence of continued neoplastic activity.

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Headache Mechanisms

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Dr. Robert Adolph: I would like to introduce Dr. Adrian Ostfeld, Assistant Professor of Preventive Medicine at the University of Illinois who has worked for three years in the laboratories and clinics of Dr. Harold Wolff at the Cornell-New York Hospital Medical Center. Dr. Ostfeld will discuss the pathogenesis of headaches. Headache is perhaps the most common complaint of patients; billions of aspirin tablets are consumed and untold absenteeism occurs each year because of headache. It would seem that to have a rational approach to treatment we should understand the mechanisms involved.

Dr. Adrian Ostfeld: It is estimated that 80 to 85 per cent of the population have had headaches at one time or another. About 10 per cent of the American people have headaches which cause them to consult a physician. In dealing with such a common disorder, it seems appropriate to attempt a kind of travelogue of headache mechanisms.

About 95 per cent of all headaches are caused by changes in function and/or structure of extracranial tissues; the remaining 5 per cent by disease or dysfunction of intracranial structures. Let us consider the less frequently encountered intracranial headaches first.

In patients about to undergo intracranial surgery, various portions of the brain and surrounding structures were electrically stimulated while the patients were still conscious. Their responses were recorded. If pain occurred, the intensity, quality, and site of referral were noted utilizing this technique. Five groups of pain sensitive structures were found inside the head:

1. The middle meningeal artery and its tributaries.
2. The arteries of the circle of Willis and several centimeters of their tributaries in each direction.
3. The pia and dura at the base of the brain.
4. The great venous sinuses and their

branches for the first few millimeters of their course.

5. Those sensory nerves whose course lies partially intracranially, i.e., the V, IX, X cranial nerves and the cervical nerves.

All headache of intracranial origin is caused by traction on, or displacement, dilatation, or inflammation of one or more of these five groups of intracranial structures.

For example, the headache of brain tumor originates in those structures which the tumor displaces. Increased intracranial pressure alone will not produce headache. If saline is injected rapidly intrathecally so as to raise C.S.F. pressure, headache does not occur. Headache is as common in brain tumor patients without increased C. S. F. pressure as it is in those with such an increase.

The pathogenesis of headache in fever has been studied. Typhoid vaccine was injected intravenously into five subjects, and the amplitude of pulsation of intracranial vessels recorded by means of an air conducting system. When headache occurred, it predictably became manifest in

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association with an increased amplitude of pulsation of the intracranial vessels. Fever headache is therefore presumably induced by dilatation and distention of pain sensitive intracranial arteries.

The headache induced by intravenous injection of histamine is of similar origin. This agent, when injected intravenously causes a fall in systolic and diastolic pressure, increased C.S.F. pressure, and increased amplitude of pulsation of intracranial blood vessels. An intense throbbing headache of short duration is produced. The pain is felt all over the head. Moreover, it is eliminated by raising the C.S.F. pressure. One might conjecture that the increased C.S.F. pressure tends to give greater support to the blood vessels and thus reduces the dilatation and distention.

It can be shown that the pain induced by histamine is not caused by a direct pharmacological action of the drug. If histamine is infused intravenously, pain occurs not during the infusion but only after it has been discontinued. Histamine lowers blood pressure by causing vasodilatation. When the infusion is stopped, the blood pressure returns to normal, distending the walls of the flaccid intracranial vessels and increasing the amplitude of their pulsations, thus initiating headache.

The headache induced by histamine has been compared and sometimes confused with migraine headache. The former is a very severe throbbing headache, lasting only a few minutes, and felt all over the head. Migraine is unilateral at its onset, of variable intensity, and commonly lasts hours to days. Histamine headache is intimately linked with dilatation of intracranial vessels; migraine usually with dilatation of extracranial vessels.

Intravenous diphenhydramine (Benadryl®) blocks the effects of histamine on blood pressure and therefore the headache as well. Local pretreatment with tripellenamine, an antihistaminic, prevents the conjunctival inflammation predictably caused by histamine. Two patients were seen while they were having scotomata and acutely anticipating a migraine headache attack. Large doses of diphenhydramine were given intravenously and both eyes flooded with tripellenamine. Headache then occurred in its usual site with the expected intensity and bulbar conjunctival vasodilatation. This observation is one of the reasons why we think that histamine either

circulating or in tissues plays little or no part in the pathogenesis of migraine headache.

Many articles have appeared relating migraine headache to food allergy. Positive skin tests to certain foodstuffs were the basis of the diagnosis. Chocolate, egg, milk, corn, and wheat were the allergens most frequently implicated. Elimination of these foods from the diet was said to have reduced the frequency and intensity of migraine attacks.

We decided to test a group of patients with migraine whose headaches were said to be caused by food allergy. They were hospitalized and a Levine tube passed into the stomach. The open end of these tubes was pinned behind them so that the patients could not see what was being put into the tube. At various times allegedly offending foodstuffs as well as "innocent" substances were injected through the tube into the stomach. There was no predictable relationship between the type of food given to these patients and the occurrence of headache. When the patients knew that they were eating the food which they expected to cause headache, however, such headache did indeed occur in about 40 per cent of cases. It is clear that through neural mechanisms, migraine may at certain times be induced by the expectation of its occurrence.

A well controlled Scandinavian study showed that children experienced headaches about 20 per cent as often as adults. Yet the gastrointestinal tract of the very young is more permeable to food allergens. Mary Loveless found that headaches following allergen overdosage in desensitization procedures did not resemble migraine. There was the same incidence of allergen overdose headache in patients with and without a migraine history. Kallos did find that certain headaches could be eliminated in a few individuals by avoidance of specific foodstuffs. These headaches, however, were associated with asthmatic attacks and bilateral nasal congestion, thus differing from migraine.

I am taking some time discussing the relationship between migraine and allergy because so much has been written and said on this subject. Our opinion may be summarized as follows: more than 90 per cent of all migraine headaches are not related to the ingestion or inhalation of any offending agent, and therefore skin testing and elimination diets are not indicated. In a

very small percentage of cases, such allergens may be implicated but there are usually symptoms such as bilateral rhinitis or asthma accompanying the headache so that the differentiation is not difficult.

The local tissue changes in migraine have also interested us. An increased sensitivity to painful stimulation in those scalp areas where the headache is experienced, is a predictable finding. Such alterations in pain sensitivity are manifest as tender areas in the scalp or pain on combing the hair or putting on a hat, and often outlast the headache itself by hours or days. Edema commonly occurs in the tender areas. We have noted hematomata on 23 occasions at such sites. The small vessels of the bulbar conjunctivae share in the vasodilatation of migraine. There are dilated arterioles, venules, chemosis, and an increase in the number of patient capillaries in the eye on the side of headache.

The local tissue changes occur in addition to the large artery dilatation in the migraine headache attack. We have done a number of experiments to try to understand their mechanism. Our current hypothesis is that local nerves release a chemical agent which has the capacity to induce arteriolar and venular dilatation, and to lower deep pain thresholds in the scalp. The arteriolar dilatation leads to increased capillary permeability and therefore to local edema. The increased permeability may also underlie the hemorrhagic manifestations described earlier. If a compound could be found which would block the effects of this locally released chemical agent, even more effective treatment for migraine would be available.

The most common type of headache, one experienced by nearly all persons, is the muscle contraction headache. This is a low intensity, commonly bilateral, non-throbbing headache which is most frequent in the neck, upper back, shoulders, or forehead. Prolonged reading, frowning, ill-fitting glasses, psychological tension and many other factors may lead reflexly to an increased tonus of the skeletal muscles of the head and neck. Electromyographic studies have shown such heightened tone. The contraction alone is probably not painful, but there is also a relative ischemia of the musculature because of local vasoconstriction. The combination of actively contracting muscle and reduced blood

supply probably initiate the pain of this kind of headache. Vasoconstrictor agents which alleviate migraine, may acutally worsen this headache. Simple combinations of salicylates and sedatives are more helpful.

There is much more that should be said but we must now move to the question period.

Doctor George A. Saxton, Associate Professor of Preventive Medicine: Have any measurements of cerebral blood flow been done in patients with migraine?

Doctor Ostfeld: Not to my knowledge. It is difficult to set up such experiments in headache patients since headaches do not occur at predictable times.

Doctor Adolph Rostenberg, Jr., Professor of Dermatology: Has serotonin been implicated in the production of headache?

Doctor Ostfeld: Serotonin may be responsible for the lowered pain threshold noted in the area of migraine headache. If one places a patient in a hot tub to produce vasodilation and then injects serotonin periarterially about the temporal artery, a migraine-like headache can be produced.

Doctor John Frenster, Resident in Medicine: Does migraine produce headache anywhere else but in the head?

Doctor Ostfeld: Migraine produces pain in the head and neck. There is probably no such thing as abdominal migraine.

Doctor Ford K. Hick, Professor of Medicine: What is the mechanism of post-traumatic headache?

Doctor Ostfeld: The headache following trauma is commonly related to chronic muscle contraction. If electromyographic studies are done on the appropriate groups, it can be shown that these muscles are actively contracting.

Doctor Saxton: Would you comment on the therapy of headaches.

Doctor Ostfeld: Mild migraine attacks can be fairly adequately treated with aspirin, caffeine and sedative combinations. Parenteral ergotamine tartrate is about 75 per cent effective in more severe attacks. If you wait too long before instituting therapy, however, ergotamine will be ineffective. In doses adequate to ameliorate the headache, ergotamine will produce nausea in

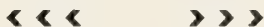
one-third of the cases. The most important prophylaxis is to work with the life situation of the patient.

I would like to say a few words about the so-called migraine personality. The person who is susceptible to migraine headaches is supposed to be perfectionistic, meticulous, and hard driving. While many persons subject to migraine attacks fit this picture, many others do not. Nevertheless, migraine can be said to be a cranial vascular consequence of a certain way of life. Heredity is also certainly involved. Migraine attacks correlate better with behavioral patterns than with personality types. The heavier the psychological investment of the migraine susceptible individ-

ual in a certain job, the more likely he is to have a migraine attack after the job is done. An intense effort at the wrong pace or in the wrong direction underlies many headaches. The physician may be able to point this out to his patient.

Doctor Hans Griebble, Instructor in Medicine: Can you diagnose migraine by the response of headache to ergotamine?

Doctor Ostfeld: I believe that four conditions are necessary before a diagnosis of migraine can be made: 1. a family history of such attacks, 2. anorexia, nausea, or vomiting during the headache, 3. unilateral origin of the pain, 4. a favorable response to vasoconstrictor drugs.



Why medicine?

Why does the little boy who wanted to become an engine-driver at six and a space-man at twelve end up as a medical student at eighteen? "Why should anyone," W. B. Bean ruefully wonders, "wish to enter a career to which the approaches are difficult, the apprenticeship full of trouble, the work long and hard, and the goals distant — at a time when science is at the upper end of the seesaw and respect for medicine at the bottom?" There are of course an infinity of superficial reasons. As in all of life's major decisions, emulation plays a part — whether our heroes are real or illusory, or whether we set out to emulate their goodness,

their wisdom, or their worldly success. Some follow in their father's and grandfathers' footsteps because they feel that this is their fore-ordained path; or because it seems the most sensible thing to do; or because they cannot think of anything else. Others make their choice as an escape from parental pressure: to them even medicine may seem preferable to the Law, the church, the army, or the family business. There are those who seek adventure, and those who seek security. To some extent we all drift. And somewhere, somehow chance always takes a hand. But deeper than such personal motives, Bean detects greater forces at work. They are altruism, curiosity, and a search for power. *Why Medicine? Lancet. Aug. 31, 1957.*

Clinically Malignant Lesions of the Nose and Paranasal Sinuses

ARTHUR L. RATKO, M.D., CHICAGO

IT HAS become increasingly apparent that certain lesions in this area, while not possessing the usually accepted criteria of a malignant tumor, may lead to a fatal termination due to:

1. Their expansile type of growth, with subsequent destruction of vital structures in the near vicinity.
2. Either recurrent or sudden massive hemorrhage.
3. Failure to diagnose and treat them adequately.

It is the purpose of this paper to present the salient features of several of these lesions, including histological and radiological aspects, and suggest an adequate and a rational means of managing them.

NASOPHARYNGEAL ANGIOFIBROMA

This lesion is characteristically seen in the prepubertal males but may persist and present symptoms into the third and fourth decades. The usual symptoms are those of:

1. Slowly progressive, usually unilateral nasal obstruction with rhinorrhea.
2. Intermittent moderate to severe nasal hemorrhage.
3. Gradual onset of pain and deformity as the lesion grows.
4. Late signs of intracranial extension, such as papilledema, cranial nerve palsies, etc.

Physical examination may disclose a lesion occupying the naso-pharynx or one so extensive as to fill the naso-pharynx and nasal cavity, expand the cheek, or produce exophthalmos. Radiologically, one may see only a soft tissue mass of the posterior wall or varied and widespread destruction of the base of the skull and sinus cavities. The lesion may rarely be a pale mass resembling a polyp, but more usually has a smooth, very vascular surface and bleeds with the slightest trauma. A biopsy is absolutely essential to diagnose the lesion, but should never be done as an office

procedure. General anesthesia with adequate facilities for control of hemorrhage are mandatory. The smaller lesions occasionally may be adequately treated by single or multiple insertion of radon seeds. However, the large lesions are best removed surgically thru a lateral rhinotomy approach followed by radon seed implantation. A few of these lesions regress spontaneously with the onset of puberty. However, the use of androgens has not proved to be as useful as it was hoped.

INVERTING PAPILLOMA

This lesion is particularly treacherous, since its gross appearance is often that of our questionable friend, the common nasal polyp. There are several gross forms ranging from a mulberry-like plaque to generalized papillomatous alteration of the nasal mucus membrane. The polypoid form cannot be distinguished grossly from the ordinary polyp. This lesion is seen most commonly in males in the third to sixth decades, is practically always unilateral and there is frequently a history of repeated polypectomies. Later in the course, hemorrhage is a frequent complaint, as well as deformity and pain as the lesion expands and destroys. A biopsy is absolutely essential to establish the diagnosis. A tip-off as to the possibility that this lesion is present, is unusually brisk bleeding during a polypectomy. Radiologically, there may be few findings, such as, clouding of the ethmoid or maxillary sinuses ranging to widespread destruction of the bony structures. Wide excision of the entire tumor-bearing area followed by intracavitary irradiation is the treatment of choice. Careful follow-up is absolutely necessary since the lesion is very prone to recur even after some time has elapsed.

OSSIFYING FIBROMA

This lesion, while not as vigorous in its growth potential, is nevertheless of considerable significance, since it possesses a distinct tendency toward malignant change if inadequately treated.

Presented before the 117th Annual Meeting, Illinois State Medical Society, Chicago, May 21, 1957.

Most commonly it is seen in young children in the first decade, in males more frequently, and is characterized by a slowly progressive unilateral nasal obstruction with few or no findings within the nasal cavities. As it enlarges, there is deformity of the cheek, occasionally compression of the orbit with exophthalmos, but rarely pain or bleeding. Radiologically, there is a marked "thinning-out" of the antral wall and infra-orbital plate by an apparently cystic mass with little or no evidence of bone destruction as seen in the first two lesions. A Caldwell-Luc procedure usually discloses a smooth, gray-pink, cystic mass filling the antrum which originates from the floor laterally near the dental roots. Complete removal with curettage of the bone at the base is usually sufficient. Again, follow-up is essential since recurrences not infrequently present the picture of a fibro-sarcoma and even osteogenic sarcoma. The deformity usually disappears when treatment is successful.

OSTEOMA

This lesion while still less active is of great importance since it occurs more frequently than the previous three. It is usually seen in middle-aged adults with no particular sexual predilection. There may be little in the way of symptoms, frequently they are discovered incidentally on routine sinus X-rays. Larger lesions may produce unilateral deformity, particularly those in the frontal sinus, neuralgic pain in the involved area, and even headache, exophthalmos or meningitis with extension into the cranial cavity. There may be considerable proptosis with those of ethmoid origin. Rarely we may see a patient with a frontal lobe abscess which upon investigation proves to be secondary to the erosion caused by this lesion in the frontal sinus. Radiologically, a smooth, moderate to extremely dense, circumscribed lesion is seen with some necrosis in the immediately surrounding bone. Surgical removal of the lesion with a moderate amount of surrounding bone is usually adequate. Occasionally, there may be a mucocele secondary to the obstruction of sinus drainage which must also be removed.

CHONDROMA

Fortunately, this tumor is seen only rarely. There are usually no symptoms until it has

reached considerable size and produces pain or a sense of "pressure", usually in the maxillary sinuses. As the lateral nasal wall is encroached upon, unilateral nasal obstruction and occasionally intermittent, spotty hemorrhage occurs. Those occurring in the nasopharynx frequently have, as their presenting symptom, cranial nerve paralysis due to intra-cranial extension. The lesion grossly is smooth, pale, quite firm and does not bleed on contact. With extensive lesions there is considerable bone destruction which differentiates them from an ossifying fibroma radiologically. Wide surgical excision is the only useful modality in therapy, since radiation has practically no effect. Even so, there is a marked tendency to recur and usually there is a fatal termination.

THERAPY

As has been previously mentioned, surgical resection is the only effective means of controlling these lesions. Only in the first two described has radiation any effect and that only by use of contact radium therapy or radon seed implantation. A lateral rhinotomy or Weber-Ferguson approach is necessary in cases where there is extensive naso-sinal involvement. It offers the advantage of wide exposure and enables one to have access to control the severe hemorrhage which may ensue during surgery. If resection of the hard palate is necessary, the defect is readily closed by a dental prosthesis. With careful technique, there is a barely discernible scar externally. Although metastases are not seen, the great tendency to recur, particularly with inadequate removal, makes frequent follow-up visits essential.

SUMMARY

A brief account of the more commonly seen benign tumors of the nose and paranasal sinuses has been presented. These lesions are of particular significance since, because of their destructive nature, proximity to vital structures, and marked tendency to recur, failure to diagnose and treat them adequately, often leads to a fatal termination. A biopsy is essential to the diagnosis and surgery is the only effective means of eradicating them in most cases. Adequate follow-up is essential to detect and treat recurrences if they are to be controlled.

30 North Michigan Avenue

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Spontaneous Perforation of the Common Hepatic Duct

LEO E. BRAUNSTEIN, M.D., AND DIONISIO Y. WEE, M.D.*

THE authors recently had the opportunity to operate on a patient with a preoperative diagnosis of acute gall bladder disease. Upon entering the abdominal cavity an unusual situation was encountered: spontaneous perforation of the common hepatic duct or that portion of the extrahepatic biliary system commencing at the confluence of the right and left hepatic ducts and terminating at the origin of the cystic duct.

This clinical entity seems to be extremely rare. Since 1945 only five references,^{1,2,3,4,5} involving seven cases of spontaneous perforation of hepatic ducts, have been found in the medical literature. One case was due to severe distention accompanying complete obstruction of the common duct by carcinoma of the Ampulla of Vater; therefore, we feel that this case should be eliminated from our present discussion.

On February 5, 1957, Miss J.M., age 64, well developed and well nourished white female, with palsy of recent origin, was admitted to the hospital with a clinical picture of acute gall bladder disease. The chief complaints were severe pain in the right upper quadrant with nausea and vomiting of less than 24 hours' duration. Minor episodes of nausea had been present on a few occasions in the morning for the past few days.

During this latest episode, pain radiated to the right shoulder and around the right costal arch. Vomiting had been persistent during the past few hours. She had been in relatively good health for many years except during the past year, when she had been treated for arterial hypertension (180/90) and about eight months ago developed right-sided palsy. The temperature on admission was 100.4 orally, pulse 90, respirations 20, and blood pressure 180/90. Laboratory examinations on admission consisted of hematocrit of 51 per cent, hemoglobin 61.1 grams, WBC 20,000 with 92 per cent polymorphs. Urinalysis was negative.

Physical examination revealed a rigid abdomen with extreme tenderness in the region of the gall bladder. No masses could be identified. Feeling that we had an acute surgical emergency we operated upon the patient, under general anesthesia, which was induced with intravenous Pentothal® and continued with cyclopropane and ether, with endotracheal intubation. The abdominal cavity was entered through a high right rectus incision. Immediately upon entering the abdominal cavity about 250-300 cc. of bile-stained clear transudate was encountered and aspirated.

The gall bladder was normal in size but acutely inflamed, presenting edema, tension, and fibrinous exudate on its surface. The cystic duct

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**Resident in surgery.*

was small and cordlike. Not having found any area on the gall bladder or cystic duct where the bile could have come from, we searched and discovered the source on the common hepatic duct about 3 cm. from the origin of the cystic duct. At this point the common duct was swollen with subserosal hemorrhage and a slow leak of bile. No stones could be palpated in the hepatic or common ducts. There was no distention at any portion of the extrahepatic biliary system which, if present, could have contributed to perforation of the duct as found. Hence, we assumed that this was spontaneous perforation of the common hepatic duct secondary to inflammation.

The gall bladder was removed by retrograde dissection and a drain placed in the gall bladder fossa, and delivered through a small incision lateral to the operative wound. A liver biopsy was done. The wound was closed with catgut in the deep tissues and black silk in the skin. During the postoperative course, the patient maintained a temperature between 99.6 and 100 until the fifth postoperative day, when it became normal and remained so. Bile continued to drain uninterrupted. On the 12th day it was con-

sidered safe to remove the drain. Bile drained for another two days and then subsided. Both wounds healed neatly.

The pathological report was chronic cholecystitis with cholelithiasis and no evidence of pre-operative bile leakage. The microscopic examination of the liver was reported as normal. At this date the patient was apparently entirely recovered from the abdominal condition.

SUMMARY

A case of spontaneous perforation of the common hepatic duct with surgery and complete recovery is reported. The literature on this subject has been reviewed.

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Fifty per cent reactions

In a recent report on a series of 49 patients with rheumatoid arthritis treated with prednisone during the past three years, major side effects occurred in 23 patients, or nearly 50 per cent. The most serious of these reactions consisted of peptic ulcer in 12 patients (24 per cent) and compression fractures in nine patients. Other complications of prednisone therapy in-

cluded polyarteritis nodosa, fulminating infections, psychosis, and diabetes. Of the total 49 patients, eight patients died during the three-year period. Five of these deaths could be attributed to therapy with prednisone.

Although prednisone is an effective and potent anti-inflammatory agent, it can be seen that due to its serious, at times fatal, side effects, it must be used with caution. *Editorial. J.M.A. Alabama, Nov. 1957.*



Renal Complications with Diabetes Mellitus (Kimmelstiel-Wilson's Disease)

EDWIN F. HIRSCH, M.D., CHICAGO

RENAL arteriosclerosis in diabetes, according to Bell, occurs in more than 75% of diabetic patients over 50 years of age and is five times more frequent and is much more severe in diabetics than in controls. Besides the fatty plaques in the lining of the intrinsic branches of the renal artery there are subintimal hyaline deposits of the afferent and efferent arterioles of the glomeruli, and capillary nodular and diffuse hyaline fibrous thickenings of the glomerular tufts. The nodular thickenings of the glomeruli are almost pathognomonic of diabetes. Obstruction of the glomerular circulation by the fibrous thickenings of the blood vessels restricts the blood supply to other portions of the kidney and results in destruction of parenchymal tissues.

The vascular changes of the kidneys in the diabetic are associated clinically with edema, albuminuria and hypertension, a symptom-complex designated as the nephrotic syndrome. Bell believes that the hyaline thickenings in the glomeruli are derived from tissues in the capillary walls and that the changes are related with arteriolosclerosis of the kidneys.

A white female aged 42 years, a known diabetic for 15 years, entered St. Luke's Hospital on February 9, 1954 in the care of Doctor A. W.

From the Henry Baird Favill Laboratory of St. Luke's Hospital Chicago, Illinois.

Smith. Her diabetes had been poorly controlled. She had had chills and fever with pyuria and hematuria in April, 1948. A year later her systolic blood pressure was 170 mms. Hg. and the non-protein nitrogen of the blood was 150 mgms. percent. In November 1953 the heart was found to be enlarged and had a grade II systolic murmur at the base. The sugar of the blood fluctuated between 56 and 285 mgms. percent; her retinas had the changes of a diabetic.

The patient was semi comatose when admitted to the hospital; her temperature was 100.2°F., pulse was 106 and respirations were 22 per minute. The blood pressure was 210/80 mms. Hg. and her lower extremities were edematous. The blood had 3,000,000 erythrocytes and 14,600 leukocytes (57% neutrophil) per cubic mm. and 8.1 gms. percent hemoglobin. The sedimentation rate of the blood was 122 mms. in one hour. The non-protein nitrogen of the blood was 104 mgms., the creatinine 7.4 mgms. and the sugar 106 mgms. percent; the alkali reserve was 36.2 volumes percent. The total serum protein was 6.77 gms. percent of which 2.89 was albumin and 3.88 globulin. The urine had a pH of 5.5 and contained 300 mgms. percent albumin. Her condition remained critical and she died on the third day after admission.

The essentials of the anatomic diagnosis of the necropsy are:



Figure 1. Photograph illustrating the atrophic tissues of the pancreas.

Atrophy of the pancreas (diabetes mellitus);
 Marked nephrosclerosis of the kidneys—
 uremia;
 Necrosis of the papillae of the right kidney;
 Hypostatic hyperemia, edema and broncho-
 pneumonia of the lungs;
 Marked fatty and fibrous plaques of the lin-
 ing of the aorta and of its main branches;
 Hypertrophy of the myocardium of the left
 ventricle of the heart;
 Anasarca;
 Chronic passive hyperemia of the liver and
 spleen;
 Etc.

The body of this adult white female had a
 generalized edema, the peritoneum and both
 pleural spaces with appreciable amounts of a
 clear limpid yellow fluid. The heart with 5 cm.
 of aorta and pulmonary artery weighed 430 gms.

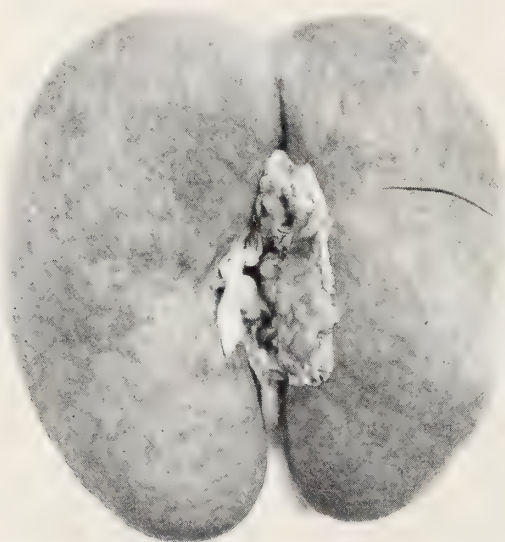


Figure 2. Photograph illustrating the granular sub-capsular surface of the left kidney.

(Figure 4) The valves had no noteworthy
 changes, but the myocardium of the left ventri-
 cle was markedly hypertrophied. The lining of
 the aorta had marked fatty and fibrous plaques.
 The edematous hyperemic and emphysematous
 right lung weighed 650 gms., the left 500 gms.

The right kidney weighing 130 gms. was
 10.5 by 5.5 by 3.5 cm. The capsule was firmly
 adherent to a granular surface. The gray red
 cortex was 7 mms. wide and the height of the
 corresponding pyramid was 13 mms. (Figure 3).
 The columns of Bertini ranged to 8 mms. in
 width. The cortical and medullary markings
 were indistinct, the kidney tissues were elastic
 and fibrous. The tip of the renal papillae had
 soft gray regions of necroses as large as 1 cm. in
 diam. The lining of the renal pelvis and ureter
 was gray. The small and intermediate branches
 of the renal artery had thick yellow walls and a
 small lumen. The left kidney weighing 140
 gms. was 10.0 by 5.8 by 4.0 cm. (Figure 2).
 It was similar to the right but did not have
 the necrosis of the renal papillae. The branches
 of the renal artery had walls thickened focally
 by bright yellow lipid deposits. The left renal
 pelvis and ureter had no significant changes.

The histologic preparations of the kidneys
 (Figure 6) had retracted scars along the cap-
 sule edge. Most of the glomeruli were hyalinized
 and shrunken; some had a few capillary loops
 with similar hyaline thickenings. The tubules
 had a dilated lumen, and flattened lining cells.
 The branches of the renal artery had fibrous
 thickened walls.

The tan atrophic and fibrous pancreas
 weighed only 50 gms. (Figure 1). The pan-
 creatic duct had a smooth lining and a patent
 channel which opened in a common ampulla
 with the bile duct. Histologically there was a

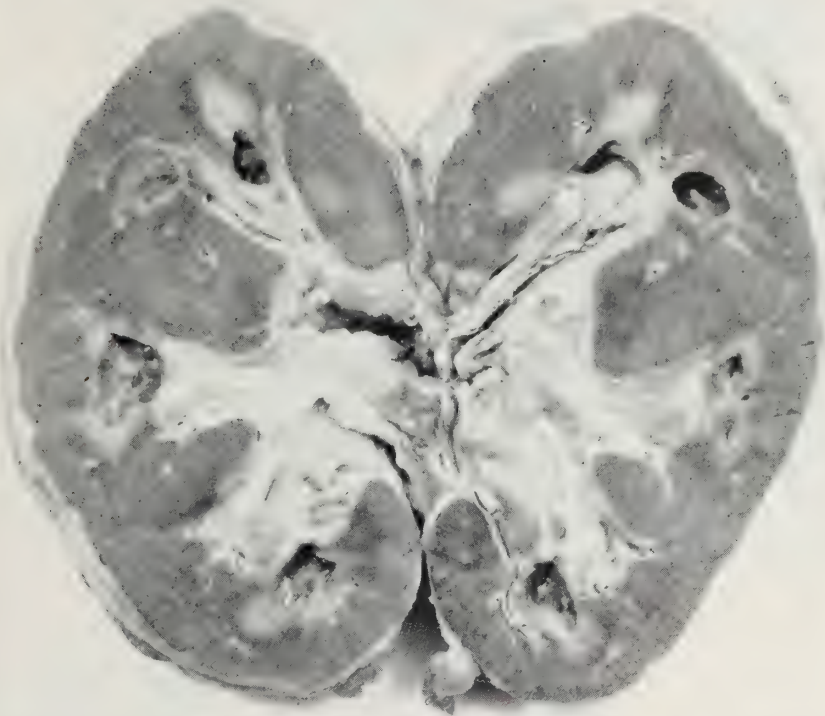


Figure 3. Photograph illustrating the parenchymal tissues and the necrosis of the papillae of the right kidney.

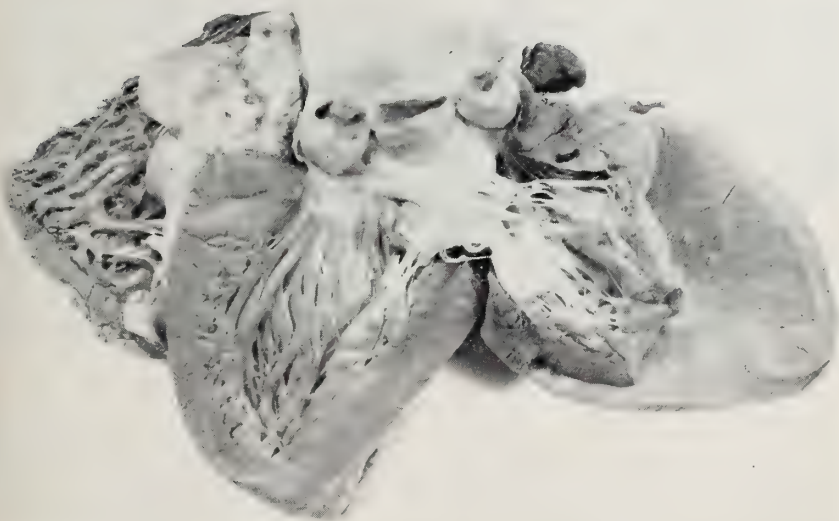


Figure 4. Photograph illustrating the hypertrophy of the wall of the left ventricle of the heart.

marked fibrous tissue replacement of the basic parenchymal tissues (Figure 5). The acini were small and only a few islets remained, some hypertrophied.

The lungs were hyperemic and had a slight bronchopneumonia.

COMMENT

The descriptive details and the illustrations

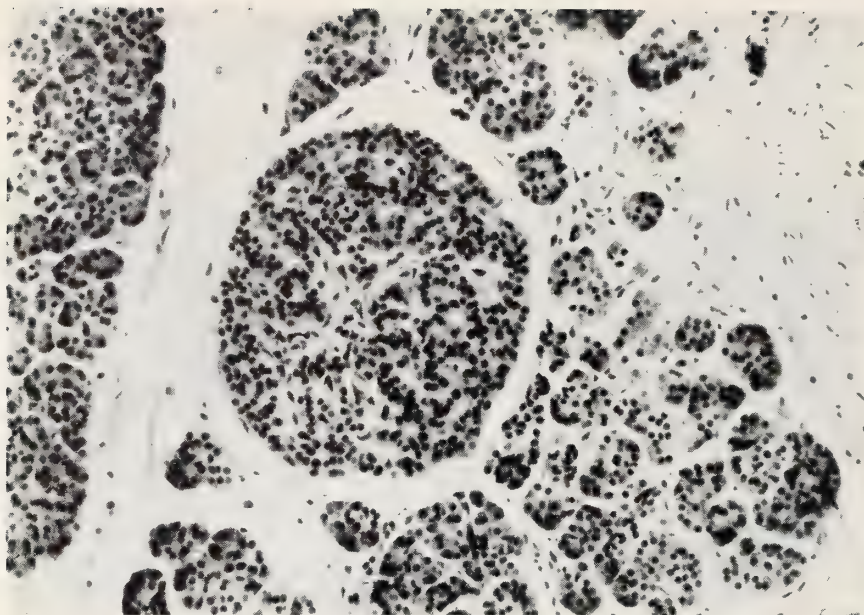


Figure 5. Photomicrograph illustrating an hypertrophied islet in the pancreas.

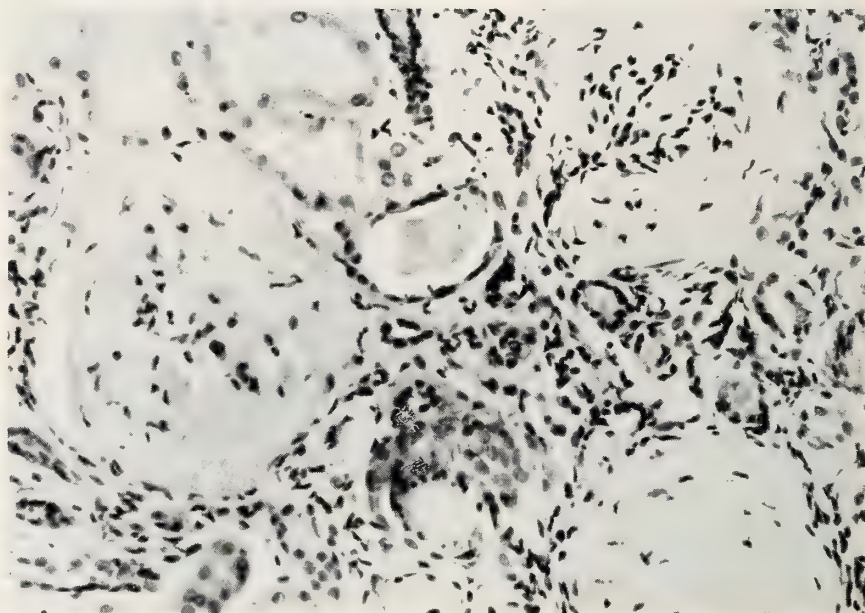


Figure 6. Photomicrograph illustrating the glomerulosclerosis and scars of the kidney parenchyma.

record the renal arteriosclerosis which occurs frequently in the diabetic patient. The renal damage is severe, tends to be progressive, and is

the product of the vascular damage which is associated with the metabolic disorder of the diabetic.

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EDITORIALS



Is your journal worthwhile?

There are 7,000 medical periodicals of which 3,000 are said to be worthwhile. These journals are published in all parts of the globe, including 600 in Russian.

Is the Illinois Medical Journal among the worthwhile publications? Your editors are aware that we have a captive readership and in this respect, cannot rely entirely upon our fine circulation. We must, therefore, ask ourselves — for whom is the Illinois Medical Journal worthwhile? We hope the journal is rewarding to its readers. Our membership is made up of specialists and general practitioners with a variety of interests. Not every scientific article meets the needs and demands of the entire membership. This objection is met by including a variety of subjects covering all fields of medicine, as well as topics on medicolegal problems, government medicine, administration, history, education, and economics.

Our readers are highly educated and competent physicians and our material must be of high caliber to attract their attention. The potential source of information for this journal is tremendous. Chicago has five medical schools plus the headquarters for many of our national medical organizations. These resources have never been tapped.

We are striving constantly for originality rather than rehashing old material. It is here that our members can help. Many of our physicians

want articles on the therapy and management of the patient, with less emphasis on the philosophical aspects of a disease. No one has ever been criticized for being practical. A baker's dozen of excerpts, published in each issue — while not original material — bring items we can spot from our sister journals.

Is the Illinois Medical Journal worthwhile to the advertisers? We believe so because our lineage continues to grow. Business men never hesitate to cancel advertising when it fails to produce results. Our managing editor does his best to distribute space and to maintain a suitable ratio between advertising and editorial matter.

Is the Illinois Medical Journal worthwhile to its parent organization? We feel that it is because it records the activities of the state society for the archives and reports meetings and coming events. Our News of the State, although not complete, is striving for better coverage. Our Public Relations department is devoted to suggestions for improvement at the grass roots level. The same can be said for the Woman's Auxiliary and The Month in Washington. In our editorials we strive to encourage leadership.

Is the Illinois Medical Journal worthwhile for the editors? We do not own the journal; we are paid employees. The journal is not published to enhance or publicize our names or to increase our standing in the profession and community. There is personal satisfaction in doing a job well, and we hope we are living up to expectations. Any publication must be dynamic to remain alive; it must grow with the times.

Influenza during pregnancy

There were 12 deaths from influenza among pregnant Illinois women during the last quarter of 1957. All deaths were investigated by the Committee on Maternal Welfare. Many of these patients did not appear ill until a few hours prior to death.

The Committee had the following recommendations to make:

1. All pregnant women should be given polyvalent influenza vaccine.

2. The Committee endorses the recommendation along this line of the Illinois Department of Public Health released Nov. 1, 1957 and sent to all hospitals. This is available on request by writing to Springfield.

3. When respiratory infections develop in these women insist on bed rest and careful observation.

4. A postmortem cesarean section should be considered whenever a viable fetus is present in a fatal case.

5. The current type of flu does not respond to antibiotics suggesting that a virus is the underlying cause.

6. The indiscriminate use of antibiotics is not advised because a virulent staphylococcus often is isolated in these cases.

7. Sensitivity tests are advised in order to administer appropriate remedies.

8. Aseptic precautions should be followed to prevent contamination of patients and babies with infectious materials.

Frederick H. Falls, M.D.

Chairman

Committee on Maternal Welfare

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New source of medical students

There is a definite place in medical education for the two-year school. The graduates from these institutions become the junior transfers of the four-year medical school. They replace the 300 to 400 students who drop out during the freshman and sophomore years but the number of graduates of the two-year schools do not meet the needs of the four-year schools.

The creation of more two-year medical schools will help solve the problem and help overcome the shortage of medical students and physicians. Universities such as Brown, Princeton, New Mexico, and Montana could add a two-

year course at very little cost to the school. Their present faculties can teach human anatomy, microbiology, physiology, and other basic sciences with minor changes in curriculums. The classes need not exceed 35 students to supply a much needed group of junior transfers.

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Understanding the press

Excerpts of a speech by Robert Fuoss, executive editor, Saturday Evening Post, to members of the American Pharmaceutical Manufacturers Association appearing in F-D-C Reports Dec. 16:

"We (the press) daily accept censorship from doctors that we would not — and do not — accept from the President of the United States. In my opinion, there is more secrecy in the practice of medicine than in the design of the Vanguard missile — and much less reason for it.

"And yet, these doctors are the same people who asked the press to protect them from the dangers of socialized medicine. The marvel is that we did it. I can't name an editor who either is, or was, in favor of socialized medicine. I can't name a newspaper, magazine, or radio station that supported socialized medicine. If there is a need to prove that the press is not vindictive and is responsible, here it is.

"I ask you (the drug manufacturers) to listen to this beef because you and the doctors are indivisible, and you and the press are destined to see a lot more of each other, too. No power on earth can keep medicine out of the press. I ask your help in the promotion of a better understanding between doctor and journalist.

"I know you give generously to medical education; I know you spend millions on medical research. It would seem only simple good sense for you to consider making a modest investment in the journalism education of some youngster who, one day, just might have to write the big story about you."

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A simple solution

Social changes occur when people become dissatisfied with the care they receive. If the physician doesn't give good service, no amount of publicity will change the patient's negative attitudes toward the medical profession.

Most physicians practice good medicine and are honest and fair with their patients. They are

not arrogant nor demanding. When are we going to eliminate the few rotten apples in the barrel? We should be more discriminating in our membership and offer it to those who agree to live up to our code of ethics. Our public relations suffers so long as we fail to clean house and send the dirty linen elsewhere.

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The medical interviewer

Louis Shattuck Baer, M.D.¹ of Burlingame, Cal., has used, with success, the services of a person to interview patients whose symptoms are recognized as psychosomatic in origin and then to assemble a pertinent history. Some of the requirements for a good medical historian are that she be a happily married woman of 50 to 70 years of age whose children are grown but whose husband is living. She should at one time have held a job outside the home, have a college education or its equivalent, be warm-hearted, understanding, patient, and well-groomed. For her services the physician charges only \$4 an hour. In turn, she provides the physician with an admirably written, organized, and summarized account of the patient. The cost of this type of record averages \$16 (four hours) as against his fee of \$25 an hour. Dr. Baer finds after studying this report that two or three office calls of a half hour each are sufficient to satisfy the needs of the patient. The method saves the physician time, the patients money, and results in many gratifying therapeutic successes.

The reader is referred to the original article for a specific interview form and further details of the plan.

A similar plan is being conducted in the Chicago office of Dr. James H. Hutton. He utilizes the services of a psychologist. The social worker in large clinics and government hospitals makes a similar report that many physicians find useful in better understanding the patient.

¹Louis Shattuck Baer, M.D. The Use of a Medical Interviewer. California M. Aug. 1957.

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Thanks, "Your Doctor Keeps You Well."

Thanks to the members of the Linen Supply Association of America who during January called attention to the services of the medical

profession by carrying truck posters on their more than 3,200 delivery vehicles.

Message on the poster read: "Your Doctor Keeps You Well."

The large four-color poster, part of the Association's year around public relations program, was seen by millions of people in virtually every city and town in the United States and Canada.

The Linen Supply Association of America, which has its headquarters in Chicago, is the international trade group for 1,188 linen and towel suppliers and allied firms.

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Community honors Dr. Baldwin, "general practitioner of year"

Carrollton, Ill., and surrounding communities turned out in force December 12 to pay homage to Dr. Arthur K. Baldwin of Carrollton, who has been selected by the Illinois State Medical Society as "General Practitioner for 1958."

The occasion was a dinner party sponsored jointly by the Greene County Medical Society and the Carrollton Lions Club, of which Dr. Baldwin was a founder and first president. The event was held in the Knights of Columbus Hall, Carrollton.

The visiting physicians virtually represented a "Who's Who" in Illinois. Among those in attendance were Dr. Lester S. Reavley of Sterling, president of the Illinois State Medical Society; Dr. H. Close Hesselstine of Chicago, chairman of the Society's Council; Dr. F. Garm Norbury of Jacksonville, past president; Dr. Harold M. Camp of Monmouth, secretary, and Dr. J. Mather Pfeifferberger of Alton, past president.

Dr. Norbury was toastmaster at the dinner, which was presided over by Mr. Richard McLane, president of the Lions Club.

The principal talk was given by Dr. Hesselstine, who discussed the function of medicine, the various phases of a physician's career, and his place in community activities.

Dr. Camp explained how the annual selection of a "general practitioner for the year" is made. The honored physician is chosen by a secret committee from nominations made by county medical societies.

The selection is made on the basis of long, outstanding service to patients; a personal record without blemish, and the devotion of con-

siderable time to community affairs and to medical society activities.

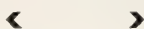
Dr. Baldwin expressed gratitude for the honor paid him. He also expressed his appreciation to Dr. Paul A. Dailey, first vice president of the Society, and Dr. A. D. Wilson, both of Carrollton, who he said had an important part in presenting his name before the State Society.

Although he had been informed that his name has been submitted, Dr. Baldwin said he nevertheless was surprised when the announcement was made. Formal presentation of the award will be made at the annual meeting of the Society in Chicago in May.

Sharing the limelight with Dr. Baldwin were members of his family—Mrs. Baldwin, who had served overseas as a nurse in World War I, and three sons, Charles and Dr. James Baldwin, an orthodontist of Indianapolis, and Kirby Baldwin of St. Louis.

The Alton Evening Telegraph, commenting editorially on the honor paid to Dr. Baldwin, said:

"In days of extreme specialization among large city doctors, it is good for the world and for the medical profession to turn the spotlight for a moment on the type of medical practice which Dr. Baldwin represents."



Polio rate down; vaccine plentiful

A recent report given by Dr. Roland R. Cross, Director of the State Department of Public Health, bears out some of the statistics released recently by the United States Public Health Service at the national level.

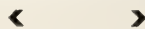
Dr. Cross stated that only 320 cases of polio were reported in Illinois during 1957 compared with 1,865 in 1956. The prevalence rate last year was 3.3 per 100,000 population compared with 19.9 in 1956. Both the number of cases and the rate in 1957 were the lowest of any year since 1939.

The relatively high prevalence of polio in each year since 1948 and the dramatic decline in 1957 makes it reasonable to believe that vaccination was an important factor in the improvement. The decline, moreover, was nationwide. Careful studies of all case reports by the U.S. Public Health Service indicate also that vaccination helped prevent the disease.

Polio vaccine is plentiful now, but the demand for it has fallen off to nearly nothing. On the other hand, now is the best time for inoculation in order to protect susceptible people against possible exposure next summer.

The Illinois Department of Public Health has on hand a stock of about 200,000 doses. This is available, on request, to any physician in the state. The department does not have the money to maintain an adequate supply of polio vaccine for unlimited distribution after the present stock is exhausted.

On a nationwide basis, the Metropolitan Information Service reports there were about 6,000 cases of poliomyelitis in the United States during 1957. This compares with more than 15,000 cases reported in 1956, about 29,000 in 1955, and with nearly 58,000 in 1952. The low level of cases in 1957 resulted partly from the wide use of the Salk vaccine. It now seems that ultimate eradication of poliomyelitis is a distinct possibility.



Medicine on postage stamps

Recent issues of postage stamps of interest to medical philatelists include the following:

Australia—A 7d stamp honors the Royal Flying Doctor Service, whose field covers 2 million square miles. A caduceus casts the shadow of a plane over a map of Australia.

Belgium—A 30f stamp commemorates the 50th anniversary of two schools of nursing, L'Institute Edith Cavell-Marie Depage and L'Ecole D'Infirmieres Saint Camille, and shows a surgical operation.

Canal Zone—A 3c stamp commemorates the 75th anniversary of Gorgas Hospital at Ancon and pictures the hospital.

Cuba—A four-value tuberculosis series shows a seated woman holding a child.

Finland—Three stamps commemorate the 80th anniversary of the Finnish Red Cross.

France—Six stamps with a surtax were issued for the benefit of the Red Cross. Destitution which accompanied the Seven Years War is recalled in two Red Cross semi-postals; the stamps picture beggars.

Germany (East Zone)—10pf and 25pf stamps portray Jean Henri Dunant, founder of the International Red Cross.

Germany (West Berlin)—A semipostal with a

surtax for the benefit of mothers' convalescence homes shows a portrait of Elly Heuss, deceased wife of Bundes President Heuss.

Hungary—L. Zamenhof (1859-1917), Russian oculist and linguist who invented Esperanto, was honored by two stamps, 60f and 1ft, on the 40th anniversary of his death.

India—A 15np stamp pictures Jean Henri Dunant, founder of the International Red Cross.

Iraq—The silver jubilee of the Red Crescent Society (equivalent to Red Cross) was observed with an overprint of the Arab Postal Congress stamp of 1956.

Italian Somaliland—Four stamps, with surcharges for the 1957 antituberculosis campaign, show a Somali nurse holding a baby.

Liberia—A set of six stamps commemorates the founding last year of the Antoinette Tubman Child Welfare Foundation for parentless children. A 15c airmail shows a nurse inoculating a boy.

Netherlands—A five-value set was issued for the benefit of the Red Cross.

New Zealand—Water safety is the theme of the 1957 health stamps and miniature sheets.

Poland—A 1z value in the Polish "Physicians" series portrays Dr. Beiganski.

Russia—A 40k stamp pictures Dr. William Harvey, British physician who discovered the circulation of blood.

Switzerland—Has supplied the World Health Organization at Geneva with its own series of six stamps. They picture the wand of Aesculapius superimposed on the UN symbol.

Turkey—Three stamps with symbolic designs boost the blood bank program of the Red Crescent, Moslem equivalent of the Red Cross. Two 65k stamps commemorate the 250th anniversary of the birth of Benjamin Franklin.

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Our Hawaiian holiday to be colorful affair

A colorful trip to the Hawaiian Islands has been planned in connection with the annual meeting of the American Medical Association in San Francisco in June. The journey will be sponsored by the Illinois State Medical Society for the benefit of its members and their families, but other physicians and their families are being



View of Waikiki beach with famed Diamond Head in the background, and the luxurious Royal Hawaiian hotel in the foreground.

invited to join the group.

The party will leave by air from San Francisco the last night of the annual meeting, June 26, arriving in Honolulu the following morning. The members will be greeted in true Hawaiian style, and then driven to the magnificent Royal Hawaiian Hotel, known the world over for its romantic setting, superb accommodations, excellent meals and exceptional service.

The next week will be a continuous round of pleasures and sightseeing. The program will include a drive to Punchbowl Crater, the national cemetery of the Pacific; a trip to the summit of Mt. Tantalus; a tour of Pearl Harbor for a view of Battleship Row; a drive to historic Hickam Field; a luau or native feast at the beautiful Queen's Surf, and a tour of other Hawaiian Islands. Several days will be left open to enjoy the white sands of Waikiki Beach and the lazy luxury of a tropical paradise.

For physicians who wish to learn something about medicine in the Islands there will be a Hawaiian Summer Medical Conference in Honolulu, July 1-3.

Participants in the tour will have the option of returning to the mainland by air or on the luxurious air-conditioned S. S. Lurine, leaving July 5. Those taking the boat will be treated to five days of additional enjoyment.

The trip can be made for as little as \$533. A descriptive brochure, with complete information, may be had by writing to Mr. W. M. Moloney, vice-president of the Harvey T. Mason Travel Company, Inc., Professional Building, "Old Orchard," Skokie, Illinois.



Medicare Administration in Illinois

FREDERICK W. SLOBE, M.D., CHICAGO

PUBLIC Law 569, on which the Medicare program is based, has been in effect since December 7, 1956. During the initial stages of such a program some confusion is inevitable. It is hoped that this article will eliminate some of the misunderstanding. This discussion is based on the Illinois experience in the light of the present contract between the Illinois State Medical Society and the Office for Dependents' Medical Care in Washington. Contracts with the Defense Department will be renegotiated periodically, thus affording opportunity for the Society to effect certain changes.

Role of the Fiscal Administrator

Illinois Medical Service, as the fiscal agent, merely administers the program which, under the requirements, must be administered on a nonprofit basis. It has no responsibility for the establishment of policy which is based on Public Law 569 and the Joint Directive. The Joint Directive and Joint Regulations were prepared by a Task Force of which the American Medical Association was a member. Finally, the basis for payment is the contract made between the Illinois State Medical Society and the Defense Department.

There are certain instances when the fiscal agent must refer matters to Washington when they refer to payments which require specific authorization. Except for instances of this kind,

the Medical Review Committee of the State Society makes decisions in problem areas.

Voluntary Participation in the Program

Participation by both physician and patient in the Medicare program is entirely voluntary. Once the physician accepts such a patient, however, he is bound by stipulations of Public Law 569 and cannot make an additional charge for authorized services. It appears that the patient, likewise, may elect not to come under the program, in which event the physician has no liability in making a report since neither he nor the patient expects Medicare to make payment. Furthermore, patients may choose between military and civilian facilities. If the latter are chosen, the regulations applicable to such care govern. Many do not realize that the services authorized in the two facilities are not the same.

Basis of Medicare Payments

In Illinois there is no published fee schedule nor do payments vary with the schedules existent in various counties. In accordance with the agreement made between the Illinois State Medical Society and the Office for Dependents' Medical Care in Washington, the physician is assumed to make his usual charges, bearing in mind the income status of the dependent. In this connection, it is of interest to note that 80% of the personnel in the armed forces have an annual income of not over \$4200.00. In lieu of a published fee schedule, the

Medical Director, Illinois Medical Service

fiscal administrator, in making payments, is limited by certain maximums and policy regulations. If the physician checks the middle box of item 29 of his report form, he will receive the appropriate Medicare payment without any further correspondence. If he does not check this box, further correspondence is necessary because the physician's acceptance of the proffered payment is required before payment can be made.

Individual Consideration

When a physician feels that there are unusual circumstances involved in his care, or that exceptional care is rendered, it is recommended that he either explain this fully in the report or attach an explanatory letter. Or, he may also do this if he feels that either the Medicare offer or the payment made is inadequate. This will subject the file to further evaluation by members of the special committee of the Illinois State Medical Society. If this committee concurs, the file is sent to the Office for Dependents' Medical Care in Washington for approval. Likewise, in instances where there is no available basis for deciding what Medicare can pay, it is required that the recommendations of the Medical Review Committee be sent to Washington for their concurrence. This, of course, causes some unavoidable delay.

Payment in Full for Authorized Services

The Joint Directive and Regulations stipulate that the Medicare payment constitutes payment in full for all authorized services. Thus, a physician cannot collect any balance due from the patient. He can, however, collect from the patient for services he renders which are not authorized under the Medicare program. If a physician is in doubt as to whether a service is authorized, he can refer to the manual or make an appropriate inquiry. Unfortunately, there is some ambiguity as to the extent of the authorized services which we will attempt to clarify in this discussion.

Authorized Services

The program is primarily one for hospital inpatients receiving the type of care customarily rendered in an acute general hospital. The Physician's Manual discusses this in reasonable detail, explaining that the care of chronic ailments, in general, and elective procedures without a medical indication, are excluded. Acute

emotional disorders are in a separate category and often require individual consideration.

Complete obstetrical care is authorized in hospital, office, and home including prenatal and postpartum care, X-ray and laboratory service, and necessary drugs. The patient must bear the first \$15.00 of the physician's charges, however, if not hospitalized during any part of the period of obstetrical care. (The same applies to the care of injuries.)

Confusion often occurs because of the statement that the payment applicable toward an operation includes not only the operation and the preoperative and postoperative surgical care in the hospital, but also the immediate preoperative care in the office or home at which time the decision was made as well as the usual postoperative office or home care. Unfortunately, there is no hard and fast rule as to how long this postoperative office care endures. It is our understanding that new regulations being drafted will clarify this. Ordinarily, one might assume that postoperative office care following operations would include those visits directly attributable to the operation; and preoperative office care would include one or two office or home visits involving the period before hospitalization, during which the decision to operate was made. Preoperative office care would not include a prolonged series of office or home calls, which would be classed as ordinary office or home care and would be the responsibility of the patient.

Surgical operations are covered only if performed on patients actually admitted to hospitals, evidenced by admission card and appropriate records. Thus outpatient care, is not covered either in the hospital, home, or office, except for injuries or obstetrical care.

Outpatient (Hospital), Home, and Office Professional Care

Since the program is primarily one for the care of hospital inpatients, care for other categories is limited to certain specified services which are described in this section.

It should be noted that outpatient care is not authorized unless connected with obstetrical care or injuries. The question often arises as to what constitutes a hospital "admission." Ordinarily all admissions of 18 hours or longer qualify. If for a shorter period it is necessary that the records show a formal admission with admission card made out and other records applicable to

a complete inpatient admission. When this happens, however, the Medicare hospital program becomes operative and the member pays the hospital the first \$25.00 of hospital charges.

1. Injuries are covered wherever treated. If not admitted as an inpatient during any part of the care, the first \$15.00 of total charges is to be paid by the patient.
2. Obstetrical care is covered wherever treatment is rendered as is explained in the foregoing. As in the care of injuries, if the patient is not hospitalized during any part of the care, the first \$15.00 of total charges is the patient's responsibility.
3. X-ray, laboratory, and other diagnostic procedures.
 - (a) When associated with maternity care (no maximums stipulated).
 - (b) Up to \$75.00 when associated with the care of injuries when the patient is not hospitalized, with \$15.00 of the total charges payable by the patient. That is, of the total X-ray, laboratory, and other professional services covered, the Medicare payments will be subject to this \$15.00 deduction which the patient pays.
 - (c) Up to \$75.00 when associated with care *prior* to hospitalization in connection with operations or injuries.
 - (d) Up to \$50.00 when associated with care *following* hospitalization for an injury or operation.
4. The office or home visit preceding hospitalization is covered if a physician terminates his care at that time by reference to another physician.
5. Two neonatal visits (including immunizations) after discharge from the hospital if within 60 days after birth.

Chronic Diseases

There is a general exclusion for the care of chronic diseases. Medicare considers a chronic disease as one which has leveled off in its progress and normally will not be materially influenced by hospitalization. That is, either maximum benefit from hospitalization has already been attained or, if hospitalized, a long period of such care would be anticipated.

Exceptions to this, however, occur in the form of certain acute episodes, complications,

and indicated surgical procedures. Individual consideration is available for instances of this kind.

Elective Procedures

In general, there is exclusion of coverage for purely elective procedures, performed at the request of the patient without a medical or surgical indication. Plastic operations whose sole indication is the cosmetic effect constitute a typical example.

Dental Care

Adjunctive dental care is covered for hospital inpatients if the physician and dentist agree that the care will have a beneficial effect upon the surgical or medical condition for which the patient is hospitalized. However, this does not include dentures, bridgework, restorations, orthodontia, or prolonged periodontal treatments.

Thus, hospitalization for dental care per se is not authorized. Nor is dental care, either inpatient or as office care, authorized as part of obstetrical care. The criteria in the foregoing paragraph must exist.

For certain injuries such as jaw fractures, however, a physician may utilize a dentist as a consultant and such care would be eligible both in the hospital or office.

The fiscal administrator forwards all dental reports to the Defense Department for disposition.

Drugs

Drugs are covered when necessary in connection with authorized services, provided they are directly administered by the doctor in his office, or the patient's home. This means drugs either given by him or injected, or (in the instance of maternity care only) by prescription. Thus, drugs administered during ordinary office or home care are covered only if required in connection with maternity care, treatment of injuries, or in connection with immediate preoperative care and usual postoperative care of patients operated upon in the hospital.

Ordinarily, if the office care itself is included in some other payment, such as the payment for antepartum care, the care of injuries, or preoperative and postoperative office care which is included in the payment applicable to an operation in a hospital, then the charges should be for the drugs and their administration only.

Obstetrical Care

The Medicare program as applied to mater-

nity care is complete and includes coverage for delivery and abortions, both in and out of the hospital, and antepartum and postpartum care. The payment for the delivery includes postpartum care, the latter being considered to last six weeks. Additional payments are made applicable to antepartum care; therefore, the report should indicate the first date of such care, the date of the last menstrual period or the expected date of confinement, and the date of delivery, whichever is applicable. As indicated in the foregoing, drugs which have a bearing on the care of the pregnancy are covered when administered or prescribed by the doctor during the antepartum period. Polio inoculations are covered, but influenza inoculations are not.

X-ray and laboratory services [except routine urinalyses] during the antepartum period are covered.

Payment on the basis of a "delivery" is assumed to be applicable after the period of viability, namely 28 weeks. Before that, payment is made on the basis of an abortion. In doubtful cases, administration will be facilitated if the infant's weight is given.

Payment applicable to delivery ordinarily is the same, whether it involves a simple uncomplicated delivery or whether forceps, episiotomy, or other procedures involving the vaginal approach are used.

If the patient is not hospitalized during any period of the maternity care, the patient is required to pay the physician the first \$15.00 of the total authorized payment.

Newborn Care

No additional payment to the physician who delivered the baby is authorized for routine care of the normal newborn in the hospital. However, two subsequent visits within the first 60 days are authorized in the doctor's office or in the home, plus additional payments for immunizations during these visits.

In hospitals where it is customary for a pediatrician to have the responsibility for all normal newborns, payment is available for the initial examination, plus the two office visits as mentioned in the foregoing.

Obviously, if the baby is sick or is premature, separate payments are available for such care.

Diagnostic X-Ray and Laboratory Service (Out-patient or Office)

These are available as follows:

- A. Up to a limit of \$75.00 prior to hospitalization for surgery or injury if for the same condition for which the patient is subsequently hospitalized. For injury cases which are not hospitalized, however, the patient pays the doctor the first \$15.00 of the total charges.
- B. Up to \$50.00 following hospitalization for injury or surgery if for the same condition for which the patient was hospitalized.
- C. When associated with obstetrical care. If the patient is not hospitalized, the patient pays the doctor the first \$15.00 of the total charges. Otherwise, Medicare pays the total charges.

X-ray therapy is not authorized on an out-patient basis unless originally prescribed and begun during a previous hospitalization and then continued or carried out on an outpatient or office basis.

Acute Emotional Disturbances

Care for nervous or mental ailments is not authorized except in special and unusual cases. For coverage it is required that the emotional disorder be an acute emergency and that hospitalization be necessary for the life, health, and well-being of the patient. Under such conditions, hospitalization is authorized for a period not to exceed 21 days. Authorization from the Office for Dependents' Medical Care is required for hospital stays beyond 21 days or because of other special circumstances. Reasons for such special extension may include prospects for early cure or remission, difficulty in arranging transfer, impossibility of establishing early diagnosis, and inability to locate husband.

Anesthesia

Anesthesia by a physician, other than the operating surgeon or obstetrician, includes inhalation, spinal, nerve block, and intravenous. Allowances are estimated on a time basis beginning with the induction of the anesthesia and ending with the termination thereof.

Surgical Assistants

Based on a percentage of the surgical payment, such payments may be available in hospitals where there are no interns or residents. These payments are not applicable to procedures such as tonsillectomy, D & C, and obstetrical deliveries.

Multiple Operations

Multiple procedures performed through the same incision receive payment applicable only to the major procedure for which the higher payment is available. If performed in remote operative fields with separate incisions 50 per cent of the usual payment for the minor procedure is paid additionally. There are certain exceptions to this, such as a D & C performed in connection with pelvic operations. Bilateral procedures in remote operative fields usually receive 50 per cent additional.

Related procedures, performed on different dates during the same hospitalization, customarily receive an additional amount equal to 50 per cent of what usually would be applicable for the minor or second procedure. This percentage may be exceeded if the interval is prolonged or under certain other conditions.

Multiple Physicians, Including Consultants

Medicare does not make payment to more than one physician for attendance during the same period of time during the same hospitalization except when especially warranted because of the need for supplementary skills. This means that ordinarily one physician is assumed to be in charge of the case. The physician in charge of the case might call in several consultants who should send in their separate reports and the physician in charge should sign the authorization. If the physician who admitted the patient performs the operation, the surgical payment to him includes not only the pre- and postoperative hospital care, but the immediate preoperative and usual postoperative office care. Thus, the payment applicable to surgery ordinarily includes pre- and postoperative care both in office and hospital.

If, however, a physician admits a patient to the hospital and studies the case and refers it to a surgeon who operates on the 10th day, for example, the original physician is eligible for payment until he refers the patient to the surgeon. A physician other than the surgeon would also be eligible for payment in the instance of diabetes or some other medical condition which required specialized concurrent care.

Obviously, if the surgeon is from a different city, all the care other than operation itself being rendered by the original physician, appropriate consideration can be given if both phy-

sicians explain the circumstances in their reports.

Consultants are not considered to be in charge of the case because, in Medicare terminology, they would then be considered as the "charge physician" and not the "consultant." If the original physician terminates his care when a patient enters the hospital to be under the care of another physician or surgeon, he is entitled to a payment for the office or home call at which time hospitalization was decided upon. Consultations may be covered in the office or home if in connection with eligible services; that is, before the patient is admitted for operation, the care of injuries, or in connection with maternity care. This usually refers either to the examination of a given system or to a complete examination and is ordinarily not considered to be on a recurring basis. Thus, for example, during the antepartum period a cardiac consultation might be indicated.

The term "consultant" in Medicare terminology does not include radiologists, pathologists, anesthesiologists, or surgical assistants. The term usually refers to surgical or medical consultants called in by the physician in charge.

Medical Care in the Hospital (Other Than Surgical, Obstetrical, or the Care of Injuries)

Payments are usually made on a per visit basis for care in the hospital. This usually assumes one visit per day except where the nature of the condition requires more frequent visits. No payments are authorized for such care in the office or home except as a consultant under certain conditions, as discussed in the preceding section. Payment beyond that which would be indicated on a flat per visit basis may be available because of prolonged detention with patient in critical condition, or if hospital visits require care beyond that which is considered routine. For prolonged hospitalization beyond the first month, payment is usually considered on a per diem basis. As regards premature infants, payments are customarily considered on a weekly basis.

There are indications that a pending change in the regulations will give special cognizance to the initial examination after hospital admission.

Accordingly, explanatory data in the original report, or in an accompanying letter, are of much help in evaluating the nature of the care.

Emergencies

With few exceptions, such care in the office or home is not covered unless in connection with other authorized care such as injuries, obstetrical care, and preoperative and postoperative care of patients who have been hospitalized. This is because the Medicare program is primarily one of inpatient care.

All emergencies, however, are covered if treated in a hospital although, in general, it is required that a hospital "admission" be effected, ordinarily a stay of 18 hours or longer, or if for a shorter period, evidenced by admission card and records.

Payments by Patients

When care of injuries or care of an obstetrical patient is rendered exclusively on an outpatient basis; that is, the patient is not hospitalized at any time during the course of the care, the patient must pay the first \$15.00 of the total charge. Thus, if in such a case the available Medicare payment were \$75.00, Medicare would pay \$60.00 and the patient would pay \$15.00. With these exceptions Medicare payments for authorized services constitute payment in full and the patient has no balance to pay. When the services are not authorized as coming under Medicare, the physician collects from the patient in the usual way.

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Isoniazid

One of the most important agents used in the treatment of tuberculosis is isoniazid. Shortly after it was introduced there were reports of euphoria and psychotic reactions, but it now appears that the euphoria is directly related to the actual clinical improvement of the patient, and psychotic reactions do not occur in a discernible cause and effect relationship with the drug. However, one complication of importance has been reported, namely a fairly typical peripheral neuropathy. This complication evidently bears a relationship to the dosage of the drug

employed and apparently affects adults exclusively. Symptoms are paresthesias, numbness, burning pain, weakness, etc., and signs include hypesthesia and exaggerated or absent deep tendon reflexes. This neuropathy resembles the natural and experimental neuritis which is caused by pyridoxine deficiency, and the consensus now is that isoniazid functions as an antimetabolite against pyridoxine. The early neuritis does indeed respond to pyridoxine therapy, but if it is permitted to progress it tends to become permanent. *Jesse D. Rising, M.D. Therapeutic Syndromes. J. Kansas M. Soc. Oct. 1957.*

CORRESPONDENCE



Surgeons meeting to take up surgical problems of G.P.

The 11th biennial International Congress of the International College of Surgeons will be held in conjunction with the 23rd annual Congress of the United States and Canadian Sections (North American Federation) in Los Angeles, March 9-14.

An innovation of the meeting will be a surgical emergencies panel to which members of the American Academy of General Practice are invited. Dr. Ross T. McIntire of Chicago, executive director of the College and former surgeon general of the U.S. Navy, will be the moderator.

Participants in the panel will be Dr. George F. Lull of Chicago, secretary of the AMA; Dr. Claude S. Beck of Cleveland, Dr. Winchell McK. Craig and Dr. Gershom Thompson of the Mayo Clinic, Rochester, Minn.; Dr. Neal Owens of New Orleans, and Dr. Edward L. Compere and Dr. Philip Thorek of Chicago.

Scientific papers will be presented by about 25 surgeons from 15 overseas countries and nearly 400 from the United States and Canada. There will be general assembly sessions at which a wide range of subjects will be taken up, including the impact of sputnik upon American medicine. Surgical specialties will be covered in 11 sectional programs.

Dr. Jose M. de los Reyes of Los Angeles, regent of the International College of Surgeons for Southern California, is chairman of the Con-

gress; Dr. Peter A. Rosi of Chicago, scientific program chairman, and Dr. J. Normal O'Neill of Los Angeles, general assembly chairman. Among the chairmen of sectional programs are Dr. Edward L. Compere of Chicago, orthopedic surgery, and Dr. Chester C. Guy of Chicago, surgery of trauma.

Additional information may be had by writing to Dr. Ross T. McIntire, executive director, International College of Surgeons, 1516 Lake Shore Drive, Chicago 10.

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Clinics for crippled children listed for March

Twenty three clinics for Illinois' physically handicapped children have been scheduled for March by the University of Illinois, Division of Services for Crippled Children. The division will count 18 general clinics providing diagnostic orthopedic, pediatric, speech and hearing examination along with medical, social, and nursing service. There will be 2 special clinics for children with cardiac conditions, 1 for children with rheumatic fever and 2 for cerebral palsied children.

Clinics are held by the division in co-operation with local medical and health organizations, both public and private. Clinicians are selected among private physicians who are certified Board members. Any private physician may refer to or bring to a convenient clinic any child or children for whom he may want examination or

may want to receive consultative services.

March 5 — Carmi, Carmi Township Hospital

March 5 — Centralia, Recreation Center

March 5 — Hinsdale, Hinsdale Sanitarium

March 5 — Rock Island (Cerebral Palsy),
Foss Home.

March 6 — Sterling, Community General

March 7 — Chicago Heights Cardiac, St.
James Hospital

March 11 — East St. Louis, St. Mary's
Hospital

March 11 — Peoria, Children's Hospital

March 12 — Joliet, Will County T. B. Sanitarium

March 13 — Sparta, Sparta Community Hospital

March 13 — Springfield, St. John's Hospital

March 18 — Alton, Memorial Hospital

March 18 — Shelbyville, Methodist Church

March 19 — Evergreen Park, Little Company
of Mary Hospital

March 19 — Jacksonville, Passavant Hospital

March 20 — Tuscola, Veterans of Foreign
Wars Bldg.

March 20 — Elmhurst (Cardiac), Memorial
Hospital of DuPage Co.

March 20 — Rockford, St. Anthony's Hospital

March 25 — Effingham (Rheumatic Fever),
St. Anthony Hospital

March 25 — Peoria, Children's Hospital

March 26 — Aurora, Copley Memorial Hospital

March 26 — Springfield (Cerebral Palsy),
Memorial Hospital

March 27 — Decatur, Decatur-Macon County
Hospital

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Handbooks on fluoridation

The Committee to Protect Our Children's Teeth, 105 East 22nd Street, New York 10, has made available two handbooks to aid in community education on water fluoridation.

"Our Children's Teeth" is a digest of expert opinions on various aspects of fluoridation and is designed to serve as a handy basic reference source. The cost is \$1. "Gains and Setbacks" is

a digest of experiences in more than 30 communities and is designed as a guide in the planning of a public education program. The cost is \$1.50.

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Chicago auxiliary plans conference entertainment

The Woman's Auxiliary to the Chicago Medical Society extends a cordial invitation to physicians' wives to accompany their husbands to the Chicago Medical Society's Clinical Conference in the Palmer House, Chicago, March 4-7.

The Auxiliary will maintain a hospitality room, which will be open daily from 9 A.M. to 4 P.M. Refreshments will be served. Tickets will be available for radio and television shows. Among other events planned are a tour of Marshall Field & Co., attendance at Don McNeil's "Breakfast Club" broadcast in the Sherman Hotel, and luncheon and ice revue in the Conrad Hilton Hotel.

Mrs. Sherman Arnold and Mrs. Joseph Cari are chairman and co-chairman, respectively, of the arrangements committee. Others assisting include Mrs. Richard E. Westland, entertainment chairman; Mrs. Nicholas Mennite, ways and means chairman; Mrs. George Turner, in charge of the hospitality room, and Mrs. Joseph Shanks, press and publicity chairman.

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Mayo staff lectures

Staff members of the Mayo Clinic and the Mayo Foundation for Medical Education and Research will present a three-day program of lectures and discussions on problems of current interest in general medicine and surgery, April 14-16, in Rochester, Minn.

Up to 21 hours of Category I credit may be obtained by American Academy of General Practice members who attend. There are no fees. Since the number of physicians who can be accommodated is limited, those desiring to attend should write Mr. R. C. Roesler, Mayo Clinic, Rochester, Minn.

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THE P. R. PAGE



Science fairs, indoctrination

Matters of interest at the local level came out of the report of the Reference Committee on Legislation and Public Relations at the recent meeting of the AMA House of Delegates in Philadelphia. Dr. Percy E. Hopkins, Chicago, was chairman of the committee.

The committee felt it was of special importance to direct attention to the National Science Fair as a worthy project which merits continued support from state and county medical societies.

"This activity," the report said, "constitutes a form of public information and influence in an area where much good can be accomplished."

It was reported to the committee that many local medical societies provide monetary support for these teen-age activities. The committee concluded that the project is commendable and that continued support and encouragement should be given these potential scientists and professional citizens of America.

Consideration also was given to more effective methods of keeping the AMA membership properly informed on all matters of interest to physicians. The committee in its report pointed out that it is the opinion of many that the responsibility for properly indoctrinating new members belongs at the local level rather than at the national level.

This idea was emphasized by several delegates who described county and state programs of in-

doctrination of medical students, interns, and new members.

Medical education week

An opportunity to inform the public, at the local level, of the ever-increasing contribution of medicine to American life and of the basic significance of medical education will arise April 20-28 when Medical Education Week will be observed nationally.

Even though there may not be a medical school nearby, every county medical society should plan for an all-out community promotion which can be of exceptional value both to the medical schools and to the profession.

A program of magnitude requires early planning. County society officers should contact their woman's auxiliaries, local health agencies, service clubs, newspapers, radio and television stations, and others for the purpose of organizing a co-ordinating committee.

The general objectives should be to develop public understanding of the progress, aims, and problems of medical education with the hope of stimulating a more adequate financial support by the public. To achieve these objectives, it is suggested that efforts be directed toward informing the public of the comprehensive role of the medical schools in education, research, and service. This should call attention to the contribution of medical schools in the education and training

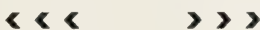
of large numbers of individuals in allied areas as well as in undergraduate, graduate, and post-graduate fields of medicine.

Particular attention should be focused on the challenges and problems confronting medical education in the dynamic current setting. Emphasis should be centered on the continuing need for facilities, personnel, and the financing essential to the further pursuit and application of medical knowledge if medicine is to continue

to make maximum contributions toward full use of the nation's health resources.

A kit of promotional material — scripts, speeches, sample proclamations, editorials, and programs for civic attention — may be obtained from the AMA Director of Public Relations, 535 North Dearborn Street, Chicago 10.

Local programs will be reinforced by national publicity on radio and television networks, in magazines, and through newspaper advertising and publicity.



Vascular accidents and anticoagulants

There has been much discussion as to whether anticoagulant drugs should be given in cerebral thrombosis and embolism and in general opinion in this country has been against their use. One reason for this is that it often is hard to distinguish cerebral thrombosis from cerebral hemorrhage, and the absence of blood from the cerebral spinal fluid does not absolutely exclude hemorrhage. Rose, in a survey of 205 fatal cases of cerebral hemorrhage found no blood in the subarachnoid space at necropsy in 10 per cent. Another reason for not using anticoagulants is the occurrence a few days after cerebral infarction of secondary cerebral hemorrhage due to alteration in the nutrition of an arterial wall in relation to the area of softening; and Rose, in his series of 205 cases, concluded from pathological examination that this has happened in 30. In Barham Carter's series death was accelerated by anticoagulant treatment in one case—that of a woman of 68 in whom, on the sixth day of treatment, the prothrombin time suddenly rose to 60 seconds and, despite discontinuation of treatment, continued to rise. Hematuria developed and she died in uremia, necropsy showing

extensive bleeding into the kidneys. After this, patients over age 60 were given a reduced dose of anticoagulant drugs. Each case was finally assessed three months after the occurrence of embolism. The patients were divided into four groups: recovered, improved, not improved, and died. By recovery was meant a return to normal life with full work and no or minimal disability, though there might be some impairment of fine movements of the hand. In the improved group were patients in whom some useful movement was possible at elbow and wrist. There was no appreciable difference in the results between the 1952 patients who were treated by repeated stellate ganglion block and the 1953 group to whom no specific treatment was given. Results were very similar in the group treated by anticoagulants alone and in that where anticoagulant treatment was preceded by a single stellate block. But on comparison of patients who had received anticoagulants, with or without a single stellate block, with those who had not had either of these treatments, the former were found to have fared better. Carter's results show that stellate ganglion block has not been of value in the early treatment of cerebral embolism but suggest that anticoagulants may be helpful. *Editorial. Cerebral Embolism. Lancet. Oct. 19, 1957.*

AT THE EDITOR'S DESK



One per cent of the Russian population is engaged in activities related to health services. They have also an ambitious program of translating scientific journals and an efficient method of bringing foreign research to the attention of the scientists and physicians. This is done, according to Dr. H. VanZele Hyde, through the Academy of Sciences in Moscow where thousands of translators, abstractors, and editors work on American and other foreign scientific journals. This explains how scientists in remote areas are able to follow four or five American journals in their field. Their program puts ours to shame.

Neutrapen, Schenlabs new penicillinase, is now on the market. The enzyme is obtained from cultures of *B. cereus* which specifically destroy penicillin. In a clinical trial on 140 patients reactions to penicillin were relieved in 92%. Itching is relieved immediately and most reactions are brought under control within 12 to 96 hours. Neutrapen is administered intramuscularly or intravenously in doses of 800,000 units.

British physicians found that large doses of aspirin lowered the blood sugar in seven diabetic patients. Clinical symptoms were relieved completely. They received from 15 to 25 grains of pure aspirin every four hours omitting the mid-

night dose. Side effects occurred but they were not serious and were easily controlled. The treatment does not appear to be as practical as insulin or Orinase. Modern research on aspirin is beginning to demonstrate why the drug has retained its popularity throughout the years.

Midicel is Parke-Davis' new sulfa compound that combats many gram negative and gram positive bacterial infections. It is most effective in treating infections of the urinary tract.

Proctologists are having their problems with the aging population. Many oldsters have hemorrhoids and the question is when to treat and when not to treat the condition. Nigro and Walker of Detroit advise no treatment unless symptoms are present and palliative treatment when symptoms are minimal. They emphasize the need for a careful examination. Carcinoma of the rectum and hemorrhoids may coexist and it is easy to blame the latter for bleeding and other symptoms. The error has occurred so often that every physician should think of carcinoma whenever a patient complains of hemorrhoids.

Isoniazid is 80 per cent effective in the treatment of complications of childhood tuberculosis. A control study on 2,750 children from 33 pediatric centers showed that complications developed in only five children receiving Isoniazid, but in 26 of those on placebos.

Aristocort is Lederle's new synthetic corticosteroid.

Ritalin Injectable was introduced by Ciba for use in oral surgery, respiratory depression, and in psychiatric treatment. It produces immediate central stimulation and is useful in combating lethargy and in hastening postanesthetic recovery.

Mead Johnson & Company has acquired the Bib Corporation, producers of America's largest selling line of natural fruit juices especially prepared for infants and children.

Medical students are finally getting a break. Bausch & Lomb Optical Company is coming out with a standard teaching microscope at school budget prices. They cost \$117 each; \$105.30 in lots of five.

The Simmons Company is manufacturing a new orthopedic type mattress with a built-in bedboard. The latter is sandwiched between two layers of springs.

"And would you like your coronaries rebored too?" In the near future many physicians may ask this question during the annual check-up. A specially designed flexible instrument containing a curette has been designed for this purpose. It is passed into the coronary artery and on being withdrawn cleans out the narrowed lumen by cutting away the atheromatous plaques and other debris. It has been used with encouraging results.

But X-rays of the coronary arteries may be needed before the vessels are cleaned out. This is possible now by utilizing highspeed X-rays. The contrast medium is injected into the aorta by retrograde catheterization under pressure. The procedure is well tolerated, using a local anesthetic, and with no adverse effects or discomfort.

Contact lenses are available now in different shades. This allows the girl friend to change the color of her eyes to match the color of her costume or mood. It may offer a hint on whether to proceed with caution, stop, or go. Rose colored lenses will be reserved for that special occasion.

A newly created tripod cane promises to offer greater stability for those recovering from a stroke. It has a flexible rubber socket in the base of the cane allowing angular action and is manufactured by Creative Products, Wilmette, Illinois.

The Federal government tells us that there are more tractors than horses on American farms. During World War I the farm worker had an average of five horsepower at his command. Today, he has nearly 50. In colonial days, 85 per cent of our population lived on farms in contrast to 13.5 per cent today. Mechanization permits a farmer to work many more years because the added horsepower is easier on his aging muscles and coronary arteries.

Dreams, according to Kleitman and Dement, last as long as dreamers have always claimed. They found by a new method that the average length of a dream is 20 minutes, with a range from three to 50 minutes.

A true professional man has good human relations. This means that he wants to get along with all the people with whom he must deal in doing his job. These include patients, nurses, colleagues, administrators, technicians, detail men, and other medical specialists.

Dynamic Posture is a new 24 minute teaching film produced and narrated by M. Beckett Howorth, M.D., clinical professor of orthopedic surgery, New York University Postgraduate Medical Center. Good dynamic posture (posture in action) is common to animals and often in children and primitive man, but is uncommon in adult civilized man. It relieves tension and gives the body a feeling of lightness. The tendency to fatigue is reduced and accidents are far less common. In the film, a model demonstrates specific types of movement as Dr. Howorth points out the direct relationship of posture to comfort, mechanical efficiency, and physiological functioning. Distributed by the Association for the Aid of Crippled Children, this film is available for purchase at \$75 per print (black and white, 16 mm., sound, f. o. b. New York); rental price is \$4 per day, or \$10 per week.

NEWS of the STATE



ADAMS

1958 OFFICERS. The new president of the Adams County Medical Society is Dr. Guy L. Tourney. Other newly elected officers are Drs. Hugh S. Espey, president elect; Charles Richards, first vice president; Givi Gabliani, second vice president; Richard Cooper, secretary; and Harold Swanberg, treasurer.

FOUNDATION MEETING. The annual meeting of the Swanberg Medical Foundation of the Adams County Medical Society was held in the society's medical library December 18. The following officers were elected for 1958: Drs. Warren Pearce, president; Norris Heckel, vice president; Harold Swanberg, secretary-treasurer; and Richard Cooper, accounting officer.

COOK

CENTENNIAL. A century of service will be observed early next spring when the Illinois Eye and Ear Infirmary, 904 W. Adams St., Chicago, celebrates its centennial.

HONORED. Dr. Thomas C. Baffles, 34, of Skokie was named one of the four top young men of 1957 by the Junior Association of Commerce and Industry. He was chosen because of his work in the surgical correction of transposition in large blood vessels in children.

HOSPITAL NEWS. The new 14 million dollars Tinley Park State Hospital at 183d St. and Harlem Av. was officially opened January 2.

The state hopes to expand the Tinley Park institution to a 3,500 bed hospital. This expansion is expected to cost an additional 36 million dollars.

HOSPITAL APPOINTMENTS. Heyworth N. Sanford, professor and head of the pediatrics department, University of Illinois College of Medicine, has been elected chief of staff of Cook County Children's Hospital.

Dr. Emanuel E. Mandel has been named associate professor of medicine and associate director of medical education at Mt. Sinai Hospital.

Dr. Warren W. Furey has been appointed chairman of the medical division of the Little Company of Mary Hospital expansion program. Dr. Furey, president of the Tuberculosis Institute of Chicago and Cook County, is head of the hospital's radiology department.

HOSPITAL HONOR BESTOWED. Dr. Joseph Welfeld, one of Chicago's pioneer urologists was honored at a dinner December 11, in St. Mary of Nazareth Hospital. He has been a staff member of the hospital for 53 years and was founder of its urology and dermatology departments.

FACULTY APPOINTMENTS. The faculty of Chicago Medical School announced the following appointments: Drs. Robert A. Reifman, clinical assistant in psychiatry; Petras Tunkunas, clinical assistant in psychiatry; and Julius N. Bell, instructor in medicine.

ELECTION TO FELLOWSHIP. Dr. C. Phillip

Miller, professor of medicine at the University of Chicago, has been elected a Fellow of the New York Academy of Sciences. Dr. Miller, a member of the National Academy of Sciences and numerous other scientific societies, has conducted extensive studies on antibiotics, particularly their effectiveness after excessive radiation.

LECTURES. Dr. Jay J. Jacoby, professor and director of anesthesia, Ohio State University, spoke before the Illinois Society of Anesthesiologists, January 25, on What an Anesthesiologist Can Offer a General Hospital.

Dr. George E. Moore, director of the Roswell Park Memorial Institute, Buffalo, N. Y., delivered the third in a series of six lectures on the behavior and treatment of cancer at Northwestern University medical school, January 14, on Combined Chemotherapy and Cancer Surgery.

The Society of Medical History of Chicago met January 15. Dr. Lester R. Dragstedt, chairman, department of surgery, University of Chicago School of Medicine, chose for his topic Siamese Twins; and Alan Richardson, department of religion and health, University of Chicago Clinics chose Cotton Mather, Colonial Theologian and Physician.

The fifth lecture in the eighth annual North Shore Hospital lecture series on Emotional Problems of Childhood was given February 5 by Dr. Morris A. Sklansky, Chicago Institute for Psychoanalysis who discussed Management of Puberty and the Sexual Drives in Adolescence.

The departments of physiology and biopsychology of the University of Chicago is sponsoring a series of topics in The Physiology and Biochemistry of Nerve, Brain, and Muscle which began January 13 for nine continuous weeks. On March 3, the subject will be Some Aspects of the Metabolism of Nitrogenous Compounds in the Nervous System by H. Waelsch, professor of biochemistry, Columbia University, and head of the department of pharmacology, New York State Psychiatric Institute. On March 10, there will be Biochemical Studies of Contraction and Relaxation in Muscle by L. Lorand, associate professor of chemistry, Northwestern University. These lectures are Monday evenings at 7:30, room 133, Abbott Hall, 951 East 58th St.

POSTGRADUATE COURSE. The second annual postgraduate course in Fractures and Other Trauma will be given by the Chicago Committee on Trauma of the American College of Surgeons

April 16-19 at the John B. Murphy Memorial Auditorium, 40 East Erie St., Chicago.

All phases of trauma will be discussed by outstanding teachers from five medical schools, and chiefs of services of leading hospitals in the Chicago area as well as notable guest speakers from other parts of the country, according to Dr. Sam Banks, director of the course. Among the visiting guest speakers are Drs. Walter Blount, Milwaukee; H. Relton McCarroll, St. Louis; Don O'Donoghue, Oklahoma City; and Joseph Boyes, Los Angeles. Topics will include trauma of the hand, head, chest, abdomen, heart, knee, shoulder; treatment of burns, athletic injuries; and other subjects selected in answer to a questionnaire sent last year's registrants. Illustrated lectures, patient demonstrations, and question and answer periods will be held also.

THEOBALD SMITH AWARD. Dr. Paul Talalay, 34, a physician and associate professor of biochemistry at the University of Chicago, has been named winner of the 1957 Theobald Smith award in medical sciences for his discovery and isolation of enzymes which govern the body's utilization of sex hormones. He is the 13th recipient of the honor given annually for an outstanding contribution by an American medical scientist under 35. The award was presented to Dr. Talalay at the meeting of the American Association for the Advancement of Science. It consists of \$1,000, a bronze medal, and expenses to the conference. Two of the enzymes discovered by Dr. Talalay are being used in the diagnosis of some types of breast and prostatic cancers and in the study of disorders associated with metabolism.

SOCIETY HONORS DR. L. W. SAUER, The North Suburban Branch of the Chicago Medical Society has prepared a panel of the citations awarded Dr. Louis W. Sauer, Evanston pediatrician, for his contributions to medicine. Included are citations from the Evanston Saratoma Club in 1955, the Medical Alumni Association of the University of Chicago in 1957, and the Royal Society of Health in 1956.

According to the *Evanston Review*, Dr. Sauer is known worldwide for his work in developing and perfecting the whooping cough vaccine. The citations presented are on an oak panel and are copies of the originals. Dr. Sauer, a 1913 graduate of Rush Medical College of the University of Chicago, has been in practice in Evanston

for more than 30 years. He is chief emeritus of the Evanston Hospital pediatrics department, associate professor emeritus of pediatrics at the Northwestern University Medical School. He has served as medical director of the Cradle Society and as president of the Chicago Pediatrics Society.

He began his whooping cough research at the Pasteur Institute in Brussels and the Whooping Cough Hospital in Vienna. In 1925 he set up his laboratory in a tiny frame cottage on the Evanston Hospital grounds. Later his work was housed in the Abbott laboratory building. Working with baby monkeys, he first produced the disease and then the vaccine. Tests began in 1931 at immunization clinics of the Evanston health department and at St. Vincent's Hospital in Chicago. By 1940, the use of the vaccine had become widespread. International acceptance was achieved by 1950 with extensive use in England, India, and China and Dr. Sauer closed his laboratory in June, 1953.

APPOINTMENT. Dr. Lorne Mason, Winnetka, was named president of the staff of St. Francis Hospital, Evanston. Dr. Mason has been a member of the St. Francis staff since 1929 and is active in medical associations and in the American Cancer Society.

MEMORIAL RITE FOR DR. MURPHY. Cardinal Stritch celebrated a mass, December 21, in Holy Name Cathedral commemorating the 100th anniversary of the birth of the late Dr. John B. Murphy, famed Chicago surgeon and medical pioneer. About 200 persons attended. Relatives and close friends of Dr. Murphy attended a luncheon later in the John B. Murphy Memorial Building. The mass was arranged by Dr. Murphy's daughters, Mrs. James E. Baggot Jr., Lake Forest; Mrs. Edward N. Hurley, Wheaton; and Mrs. Andrew E. Van Esso, Washington, D. C. Dr. Murphy died at 59 on Aug. 16, 1916. Presidents Theodore Roosevelt and Woodrow Wilson paid him tribute as a pioneer in surgery. He was a founder of the American College of Surgeons.

HENRY

JANUARY MEETING. Dr. John L. Bell, Chicago, associate in surgery at Northwestern University Medical School, gave a talk on the Treatment of Burns before the Henry County Medical Society, January 8 at Galva.

LA SALLE

CHRISTMAS DINNER DANCE. Twenty-eight physicians and their wives met for dinner and a dance at the annual Christmas meeting of the LaSalle County Medical Society.

MACON

NEW OFFICERS. Macon County Medical Society officers for 1958 are: Drs. F. Jack Brown, president; James B. Waller, president elect; Rufus A. Snyder, treasurer, and John W. Little Jr., secretary.

MEMORIAL FUND. The Richard C. File Memorial Fund (Decatur psychiatrist, died Aug. 31, 1955) gave a check for over \$1,000 to the Macon Society Health Clinic for furnishings and equipment in the recently expanded clinic space on the second floor of City Public Hospital. Mrs. File has continued her husband's interest in mental health and psychiatric facilities. In 1956, she was elected to a three-year term as a director of the clinic board.

RICHLAND

HEAD OF MEDICAL GROUP. At their regular meeting held December 14, the Richland Memorial Hospital Staff elected Dr. James W. Landis as chief of staff for the coming year. Highlight of the past year's activities of the Richland County Medical Society under the able direction of Dr. John P. Doenges, outgoing chief of staff, was the Heart Conference held in June which attracted physicians and heart specialists from a wide area.

ROCK ISLAND

NEW APPOINTMENT. Dr. Martin S. Sloane, former assistant superintendent of the Anna State Hospital is now superintendent of the East Moline State Hospital.

ST. CLAIR

NEW OFFICERS. Dr. V. P. Siegel is president of the St. Clair County Medical Society for 1958 and Dr. L. Tegtmeier, president elect. Other officers are Drs. L. Kappel, vice president; J. S. Hipkind, secretary; and N. Shippey, treasurer.

VERMILION

OFFICERS FOR 1958. The following officers for Vermilion County Medical Society were elected: Drs. Fritz Koenig, president; Paul E. Hepner,

vice president; and L. W. Tanner, secretary-treasurer.

GENERAL

ANESTHESIOLOGISTS. The following program was presented by the Illinois Society of Anesthesiologists at the Leland Hotel, Springfield, Illinois on February 20: Practical Hints in the Administration of Spinal Anesthesia by James Felts, M.D.; Maintenance of Normal Circulation during Surgery and Anesthesia, Harold Harris, M.D.; and Practical Suggestions for the Administration of General Anesthesia, Herbert M. Epstein, M.D.

LECTURES ARRANGED THROUGH THE ILLINOIS STATE MEDICAL SOCIETY:

ELFRIEDE HORST, member of the pediatric staff of St. Francis Hospital in Evanston, addressed the North School Parent-Teacher Association of Des Plaines, January 14, on "Use of Antibiotic Drugs and Vitamins for the Elementary School Child."

RICHARD B. CAPPS, associate professor of medicine, Northwestern University Medical School, addressed the Stock Yards Branch of the Chicago Medical Society, January 17, on "Rational Use of Liver Function Tests."

JOSEPH H. KIEFER, associate professor of surgery, University of Illinois College of Medicine, Stock Yards Branch of the Chicago Medical Society, February 21, on "Diagnosis and Treatment of Urinary Tract Infections."

THOMAS F. KRUCHEK, clinical assistant in psychiatry, Stritch School of Medicine of Loyola University, United Order True Sisters—Sarah Greenebaum No. 16, March 4, on "Child-Parent Relations in the Home."

PAUL C. CELLA, member of the pediatric staff of the Little Company of Mary Hospital, Emerson School Parent Teacher Association, March 4, on "Health of the School Child."

CLYDE J. GEIGER, associate clinical professor of obstetrics and gynecology, Stritch School of Medicine of Loyola University, Congregation Kesser Maariv Parent-Teacher Council, March 5, on "The Menopause."

GROVES B. SMITH, Superintendent of the Beverly Farm Home and School for Nervous and Backward Children, Godfrey, St. Mary's Home and School Association, Canton, March 13, on "Mental Hygiene."

DEATHS

ABEL C. ANTHONY, Chicago, who graduated at the University of Illinois College of Medicine in 1931, died recently aged 57. He was a member of the staff of the Provident Hospital. Medical Journal — Galley 41A

EMANUEL M. ARNOVITZ*, Granite City, who graduated at St. Louis University School of Medicine in 1924, died July 8, aged 62.

ANDREW DUMAS BEASLEY, Chicago, who graduated at Meharry Medical College in Nashville in 1911, died in the Albert Merritt Billings Hospital, August 11, aged 72.

CLYDE BERFIELD*, Toulon, who graduated at Rush Medical College in 1904, died October 18, aged 78, of cardiovascular disease. He was associated with St. Francis Hospital and Kewanee Public Hospital, both in Kewanee.

ADOLPH EDWARD BISKUP, Riverside, who graduated at Northwestern University Medical School in 1922, died September 19, aged 62, of carcinoma of the pancreas. He was associated with St. Anthony de Padua Hospital in Chicago.

COLEMAN G. BUFORD*, retired, West Palm Beach, formerly of Chicago, who graduated at Northwestern University Medical School in 1894, died December 23, aged 85. He was a co-founder of the American College of Surgeons and a member of the staff of St. Luke's Hospital.

ELVEN J. BERKHEISER*, Chicago, who graduated at Rush Medical College in 1914, died January 3, aged 70. He was emeritus associate professor of orthopedic surgery at the University of Illinois. He retired 2 years ago as head of the department of orthopedics at the Presbyterian Hospital; he had also served on the orthopedic staffs of Grant and Walther Memorial Hospitals.

HARRIET M. DANIEL GRAVES*, retired, Murphysboro, who graduated at the Hahnemann Medical College and Hospital in 1904, died November 26, aged 82.

HARRY OTIS COLLINS*, Quincy, who graduated at Keokuk (Iowa) Medical College in 1897, died October 10, aged 84, of cerebral hemorrhage, complicating a fractured hip received in a fall. For many years he had served as county health officer, also as city health officer; he was a member of the American Public Health Association and was associated with the Blessing Hospital and St. Mary's Hospital, both in Quincy.

*Indicates members of the Illinois State Medical Society.

FREDERICK W. MERRIFIELD*, Chicago, who graduated at both Northwestern University Medical and Dental Schools (from the Medical School in 1931), died January 6, aged 70. He was emeritus associate professor of dental surgery at Northwestern University Medical School, and emeritus professor of surgery at Northwestern's Dental School. He was founder and chairman of the Cleft Lip and Palate Institute at the Dental School and a member of the emeritus staffs of Passavant, Evanston and the Children's Memorial Hospitals.

OLIVER L. MITCHELL, retired, Oak Park, who graduated at Northwestern University Medical School in 1893, died January 3, aged 88.

FRANK W. NICKEL*, Winter Park (Florida), formerly of Eureka, who graduated at the College of Physicians and Surgeons of Chicago, School of Medicine of the University of Illinois, in 1910, died December 21, aged 74, of a cerebral hemorrhage. He moved to Winter Park in 1951.

EDWARD ALLEN OLIVER*, Chicago, who graduated at Rush Medical College in 1909, died November 5, aged 74, of coronary insufficiency. He was emeritus professor of dermatology at Northwestern University Medical School, where he joined the faculty in 1940 as professor and chairman of the department of dermatology and syphilology. He was a member of the American Dermatological Association, of which he was past-president, and the American Academy of Dermatology and Syphilology; past-president of the Chicago Dermatological Society. He was associated with the Veterans Administration at Hines, St. Francis Hospital in Evanston, and St. Luke's and Passavant Hospitals.

PETER PAVLUK, Chicago, who graduated at the Chicago Medical School in 1931, died November 4, aged 57, of cancer and portal cirrhosis. He was associated with St. Luke's Hospital.

DAVID BILLINGS PECK*, Chicago, who graduated at Northwestern University Medical School in 1905, died November 7, aged 79. He was chairman of the Board of the Bowman Dairy Company, of which he served as vice-president, a director, and president.

JOSEPH RAIMOND*, New Boston, who gradu-

ated at Rush Medical College in 1937, died recently, aged 48.

DONALD E. ROSSITER*, Highland Park, who graduated at Northwestern University Medical School in 1925, died December 14, aged 57.

MAURICE S. SANDERSON*, Edwardsville, who graduated at the Chicago Medical School in 1944, was killed December 18, when two bandits entered his home and tried to rob him. He was shot in the chest. He was health official for Madison County, aged 44.

JOHN F. SHALLENBERGER, retired, Chicago, who graduated at the Chicago College of Medicine and Surgery in 1907, died January 5, aged 79. He had practiced medicine on Chicago's south side for 40 years.

GEORGE A. SHARE*, Chicago, who graduated at the Chicago College of Medicine and Surgery in 1908, died December 16, aged 76. He had served as medical director at Armour & Company for 31 years, and was a member of the staff of the Evangelical Hospital. He retired from the Armour post in 1950, but continued his medical practice.

LAURENCE EUGENE SHOWALTER*, Dolton, who graduated at Northwestern University Medical School in 1933, died October 8, aged 52, of acute coronary occlusion. He was a member of the American Academy of General Practice.

GEORGE THOMAS SMITH, retired, Chicago, who graduated at the Hahnemann Medical College and Hospital in 1897, died October 28, aged 85, of cerebral thrombosis.

MEYER J. STEINBERG*, Chicago, who graduated at Rush Medical College in 1926, died January 6, aged 54. He was associate professor of medicine at the Chicago Medical School and a member of the staffs of Bethany, Weiss Memorial, and Highland Park Hospitals.

KENNETH F. STOTZ*, Chicago, who graduated at Northwestern University Medical School in 1934, died January 3, aged 48. He was president of the Chicago Society of Industrial Medicine and Surgery, and a fellow of the International College of Surgeons. He was a member of the staffs of Norwegian American and the Walther Memorial Hospitals.

*Indicates member of the Illinois State Medical Society



She'll welcome your understanding . . . and **ERATOL**

This self-conscious lass of 15 has her personal tragedy written on her face. It's highly unlikely she'll move any of her crowd to verse. Yet she can inspire you to new concern for the seriousness of her plight *to her* and to thousands like her. Life has a way of ironing out "kinks" like acne—but she and her friends don't know this and often won't believe you if you tell them. They want "action now."

ERATOL is action. It helps you clear existing lesions and prevent disfigurement. Eratol ointment contains *four* of the agents

known to be effective in topical application and most often recommended in the management of acne. These are combined in a unique base designed to make them most effective and least likely to produce irritation. Avoiding the commonly-used bentonite, Eratol employs a special synthetic mineral superior in oil-absorbency. **ERATOL** is pleasant to use and completely greaseless. Very important to patients, Eratol *masks* lesions as it medicates. Its pleasing *natural* flesh tint dries smoothly, leaves no harsh painted look.

ERATOL FOR ACNE—*greaseless, flesh-tinted, antiseptic*

Active ingredients: Sulfur, resorcinol,
zinc oxide, boric acid. Alcohol, 10%

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BOOK REVIEWS



CARCINOMA OF THE BREAST. The Study and Treatment of the Patients. Andrew G. Jessiman, F. R. C. S., M. D. Henry E. Warren, Fellow and Assistant in Surgery, Howard Medical School; Junior Associate in Surgery and Cancer Coordinator, Peter Bent Brigham Hospital and Francis D. Moore, M.D. Moseley Professor of Surgery, Harvard Medical School; Surgeon-in-Chief, Peter Bent Brigham Hospital.

New England Journal of Medical Progress Series. 135 pages—\$4.00—Little, Brown & Co. Boston, Toronto.

This is a rather small book and its purpose as expressed by the authors is to answer this question: In the light of the present evidence, what is best for the patient? And to say the least there is nothing new in this. Theoretically, this is the real reason for the authorship of any book dealing with medical ideas.

The actual text discusses such isms as The local treatment; radical surgery vs simple mastectomy combined with intensive radiation.

The use of urine calcium and endocrine assay as study devices to define endocrine responsiveness of the tumor and select proper treatment.

The recognition of ovarian cortical stromal hyperplasia in post menopausal women as a fre-

quent endocrine setting for the disease.

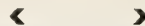
The use of cortisone in this disease.

The use of adrenalectomy and hypophysectomy on operative management.

The authors suggest many varied types of therapy; varying the agents used to the individual's response to the disease and previous treatment; not just summarily treating all breast cancers in the same manner.

A carefully planned approach to the patient with carcinoma of the breast involves study of the histologic, clinical and biologic types of the tumor, the state of its progression and its reaction to various hormones.

C. P. B.



CIBA FOUNDATION SYMPOSIUM ON BONE STRUCTURE AND METABOLISM, Editors for the Ciba Foundation, G. E. W. Walstenholme, O. B. E., M. A., M. B., B. Ch. and Cecilia M. O'Connor, B. S. C.

This book continues the high standard already established by Ciba Foundation in their previous publications of volumes reporting subjects reviewed by experienced investigators. Each subject in this book is an account of the personal researches, and then the discussion following the presentation of the paper.

These participants were persons well qualified for speaking or writing concerning "Bone

(Continued on page 60)

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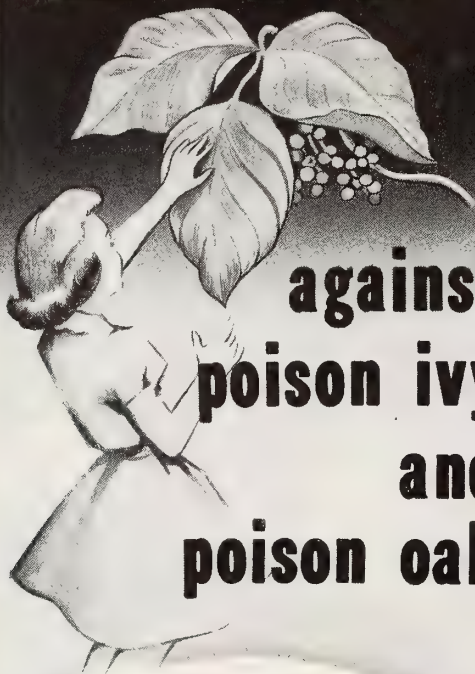
¹Nichols, R. L. and Finland, M.: *J. Clin. Med.*, 49:410, 1957.

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BOOK REVIEWS (Continued)

Structure and Metabolisms;" and the many aspects of the subject.

There were 28 eminent authorities who took part in the presentation.

This volume which is not large belies it's size in the voluminous data contained in it's 299 pages with ample illustrations.

C. P. B.

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STEDMAN'S MEDICAL DICTIONARY. Nineteenth revised edition. The William & Wilkins Co., Baltimore, 1957. 1656 pages, illustrated, \$12.50.

The publishers have written eight enlightening paragraphs on how to get the most out of the dictionary. The section on medical etymology is excellent for study. The illustrations are simplified by diagrammatic drawings where possible. The thesaurus quality is found in paragraphs of related terms. Some of these terms are defined in their proper alphabetical place, but many others appear in no other place in the dictionary, as they are relatively obscure or infrequently used. For example, the related terms in the table of bones are abscess, osteomyelitis; absorption, osteoporosis, osteolysis, osteoneogenesis, osteoclasts; and many more to complete the list. All of these features are to be commended. In addition, the appendix contains tables ranging from those of weights and measures, through temperature scales, pathogenic microparasites, and nomenclature in Latin and English.

BOOKS RECEIVED

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

A MENTAL HEALTH HANDBOOK. By Ian Skottowe, M.D., M.R.C.P., D.P.M., Psychiatrist, The Warneford and Park Hospitals, Oxford. Edward Arnold (Publishers) Ltd. \$5.50.

HORMONES IN BLOOD, Volume 11, Ciba Foundation Colloquia on Endocrinology, G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., Editors for the Ciba Foundation and Elaine C. P. Millar, A.H.-W.C., A.R.I.C. With 74 illustrations. Little, Brown and Company, \$9.00.

OPHTHALMOLOGY AND OTOLARYNGOLOGY, SURGERY IN WORLD WAR II, Editor in Chief, Colonel John Boyd Coates, Jr., M. C. Editor for Ophthalmology, M.

(Continued on page 62)



*Sweet dreams, form a shade
O'er my lovely infant's head
Sweet dreams, pleasant dreams
Happy, sleepy time for bed.*

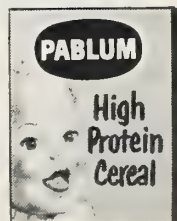
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BOOKS RECEIVED (Continued)

- Elliott Randolph, M.D., Editor for Otolaryngology, Norton Canfield, M.D., Associate Editor, Elizabeth M. McFetridge, M.D. Published by The Surgeon General, Department of the Army., Washington, D.C.
- HUMAN HISTOLOGY, A Textbook in Outline Form. By Leslie Brainerd Arey, Ph. D., Sc. D., LL. D., Robert Laughlin Rea Professor of Anatomy, Emeritus Northwestern University. 337 pages. W. B. Saunders
- ATLAS OF CLINICAL ENDOCRINOLOGY, including text of diagnosis and treatment. By H. Lissner, A.B., M.D., Clinical professor emeritus of medicine and endocrinology, University of California School of Medicine, San Francisco; former president, The Endocrine Society and Roberto F. Escamilla, A.B., M.D., Clinical professor of medicine, University of California School of Medicine, San Francisco; Civilian consultant and chief of Endocrine Clinic, Letterman Army Hospital, San Francisco. 148 pages, including 3 in color. The C. V. Mosby Company, St. Louis. \$18.75.
- SECOND TISSUE HOMOTRANSPLANTATION CONFERENCE. Volume 64, Art. 5, pages 735-1073, Annals of the New York Academy of Sciences. Editor in Chief, Otto V. St. Whitelock, Associate Editor, Franklin N. Furness. Consulting Editor, John Marquis Converse. \$4.50.
- MERCURY AND ITS COMPOUNDS. Volume 65, Art. 5, pages 357-652. Annals of the New York Academy of

Sciences. Editor in Chief, Otto V. St. Whitelock, Associate Editor, Franklin N. Furness. Consulting Editor, Cecil V. King. \$3.50.

THE PHARMACOLOGY OF PSYCHOTOMIMETIC AND PSYCHOTHERAPEUTIC DRUGS. Annals of the New York Academy of Sciences. Editor in Chief, Otto V. St. Whitelock, Associate Editor, Franklin N. Furness. Consulting Editor, Seymour S. Kety. \$5.00.

ANESTHESIOLOGY AND RELATED PROBLEMS. Volume 66, Art. 4, pages 841-1022, Annals of the New York Academy of Sciences. Editor in Chief, Otto V. St. Whitelock, Managing Editor, Franklin N. Furness, Associate Editor, Margaret P. Cameron, Consulting Editor, C. R. Stephen. \$4.00.

CHEMISTRY AND BIOLOGY OF PURINES, Ciba Foundation Symposium. Editors for the Ciba Foundation: G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch. and Cecilia M. O'Connor, B.Sc. 124 illustrations and structural formulae: Little, Brown and Company, Boston, \$9.00.

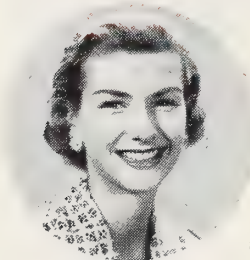
MANAGEMENT OF THE PATIENT WITH HEADACHE. By Perry S. MacNeal, M.D., F.A.C.P., Bernard J. Alpers, M.D., Sc.D. (Med), F.A.C.P. and William R. O'Brien, M.D., F.A.P.A., Lea & Febiger, Philadelphia, \$3.50.

MEDICINE AND WRITING. By Russell L. Cecil, Morris Fishbein, John F. Fulton, Joseph Garland, Douglas Guthrie and Felix Marti-Ibanez. M. D. Publications, Inc., New York, New York.

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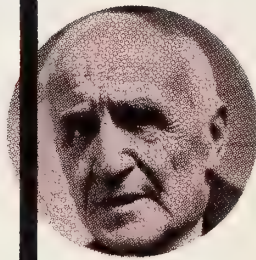
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
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References: 1. Groskloss, H. H., et al: Clin.
Med. 2:885 (Sept.) 1955. 2. Goldsmith, J. W.:
Minnesota Med. 40:99 (Feb.) 1957.

The depressed patient

Depressions are particularly benefited by modern methods of psychiatric treatment, such as electroshock therapy. As depressions constitute one of the commonest forms of mental illness, and as electroshock therapy greatly shortens the course of the illness, it means a tremendous saving of time and money if facilities are available to treat depressed patients in this way. It means not only a saving of the cost of mental hospital care, but also a saving of the self-respect of the patient and his family, if such treatment can be carried out in a general hospital like any other treatment for any other illness. Depressions are frequent whenever the demands of life exceed a person's capacity for meeting those demands, and are particularly frequent at times such as the involuntal or the latter years of life, when the demands of life are particularly difficult and the emotional resources limited. To delay treatment for such depressed patients is to risk death by suicide. A week or two in a general hospital, with prompt electroshock therapy, can restore these depressed people from

complete incapacitation to health sufficient for meeting the ordinary demands of life. *George G. Merrill, M.D. Electroshock Therapy in a General Hospital. Maryland M. J. July, 1957.*

< >

Frustration and obesity

Bruch reports that a unique, specific source of conflict found in many obese patients is their unrealistic aspiration level. She feels that they frequently have goals that are much too high for their capacities and they are invariably frustrated in achieving them. Obesity, she suggests, often is a substitute bigness for their unrealistic grandiose aspirations. She feels they must be encouraged to follow goals capable of realization. Certainly, in superficial psychotherapy, the doctor may be called on often to help the patient examine his life goals (vocational, educational, etc.) and to help him judge whether they are unrealistic or practical. *Harold I. Kaplan, M.D. et al. The Psychomatic Management of Obesity. New York J. Med. Sept. 1, 1957.*



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Labor contractions

How many pains make a baby? This is the facetious form in which the layman phrases a serious scientific query. As can be surmised, there is extraordinary variation. According to one Swiss Study, first labors required an average of 135 contractions and multiparous labors, 68. *Alan F. Guttmacher, M.D. Pregnancy and Birth.*

< >

Cerebral artery spasm

The frequently invoked "spasm" of major cerebral vessels has little to recommend it. Positive evidence for its occurrence is remarkably difficult to find. There are other more reasonable explanations for transient episodes of cerebral dysfunction. It would appear that neurogenic vasoconstrictor influences on the cerebral circulation are, for some unknown reason, quite feeble in comparison with their importance in the systemic circulation. *Charles A. Kane, M.D. Recent Advances in the Understanding and Management of Cerebral Vascular Disease. Rhode Island M.J. Oct. 1957.*

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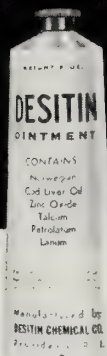
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1. Grayzel, H. G., and Schapiro, S.: *Western J. Surg., Obstet. & Gynec.*, Oct. 1956.

Deaths from penicillin

Deaths due to penicillin sensitivity are caused by immediate anaphylactic reactions rather than by the delayed urticarial or serumsickness type of reaction. Pretherapy identification of persons likely to have anaphylactic reactions would permit withholding of penicillin to prevent fatal reactions.

A simplified procedure of testing for penicillin anaphylactic sensitivity is described. This consists of application of drops of full-strength (300,000 units per millimeter) procaine penicillin solution to a skin scratch and into a conjunctival sac. The test areas are observed after 15 minutes for itching, redness, edema and wheal formation. The only material required is that needed to administer the therapeutic dose of penicillin.

Evaluation of this simple procedure as a routine pretherapy sensitivity test was the object of a clinical study during which 1,365 subjects were tested. The method was found to be highly accurate in identifying persons susceptible to penicillin anaphylactic reactions.

It is simple and can be applied in all situations in which penicillin might be injected, both military and civilian.

Any morbidity associated with the tests themselves may be expected to be milder than the reaction to a full therapeutic dose of penicillin administered to the same person.

From the experience of this study, this procedure of testing for anaphylactic sensitivity should be applied routinely to all patients scheduled to receive penicillin before the first injection of a series. Patients who demonstrate an area of skin or itching, redness or edema of the eye should not be given penicillin in any form until further testing conclusively proves that they are sensitive to the vehicle and not to the penicillin. Approximately one per cent of patients will be denied penicillin therapy under this program. *Major Vernon M. Smith, M.C., USA. Fatal Reactions to Penicillin. New England J. Med. Sept. 5, 1957.*

◀ ▶

More than 98 per cent of all paralytic polio occurs in persons under 40 years of age. Be sure you have your three Salk shots!

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Hepatic insufficiency

Hepatic coma is believed to be due to a failure in synthesis of urea, with subsequent intoxication by ammonia and other nitrogenous compounds. The most rational treatment, therefore, is to restrict the intake of protein and as little as 20/g. a day can be tolerated for long periods.

Carbohydrates should be given in large quantities, if necessary intravenously, to insure an adequate intake of calories. A short course of chlor-tetracycline or neomycin is recommended to destroy nitrogen-forming bacteria in the gut. No specific drug is yet known for the treatment of hepatic failure, comparable, for example, to digitalis. Glutamic acid occasionally is successful but does not influence the course of the more severe forms of hepatic necrosis. More recently, an encouraging report has appeared on arginine, an amino acid which plays a part in the formation of urea free from ammonia. It is given intravenously, 25 g. of L-arginine hydrochloride being dissolved in 500 ml. of 10 per cent dextrose; the dose can be repeated if necessary. More than half the 15 patients studied, includ-

ing two with severe viral hepatitis, responded favorably, but the course of liver failure is so unpredictable that larger number will have to be treated before conclusions are justified. *Editorial. Treatment of Hepatic Failure. British M. J. May 18, 1957.*

◀ ▶

The wrong way

Another deterrent (to action) arises from an expectation that is held in many quarters that if action is delayed at local levels, sooner or later a higher level of state central government will accept responsibility, and in some magical way the work at hand may be done without cost to the community. *Herman G. Baitz. World Health Goals in Environmental Sanitation. Public Health News (New Jersey), Aug. 1957.*

◀ ▶

No man can tell whether he is rich or poor by turning to his ledger. It is the heart that makes a man rich. He is rich according to what he is, not according to what he has.

—Henry Ward Beecher

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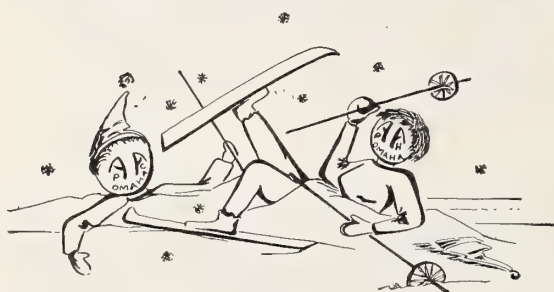
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Clinical trials were made on 12 patients with impacted feces in whom enemas of water; mineral oil, and other substances had been used, without success. The patients were given enemas of either 5.0 grams of Caroid or 0.13 gram of crystalline papain in 300 ml. of a warm, aqueous solution of 1:5,000 Zephiran chloride.® In 10 of the 12 patients, a bowel movement followed the retention of one of these enemas for one hour. In debilitated or weak patients, the gluteal regions were brought together with strips of adhesive tape to prevent leakage of the fluid. In none of these patients was there clinical evidence of irritation of the rectum such as pain, tenesmus, tenderness, blood in the stools, or subsequent constipation or diarrhea. *George C. Godfrey, M.D. and Joseph M. Miller, M.D. Treatment of Impaction of Feces with an Enema Containing an Enzyme. U.S. Armed Forces Med. J. Aug. 1957.*

The test of good manners is to be able to put up pleasantly with bad ones. — Wendell Wilkie




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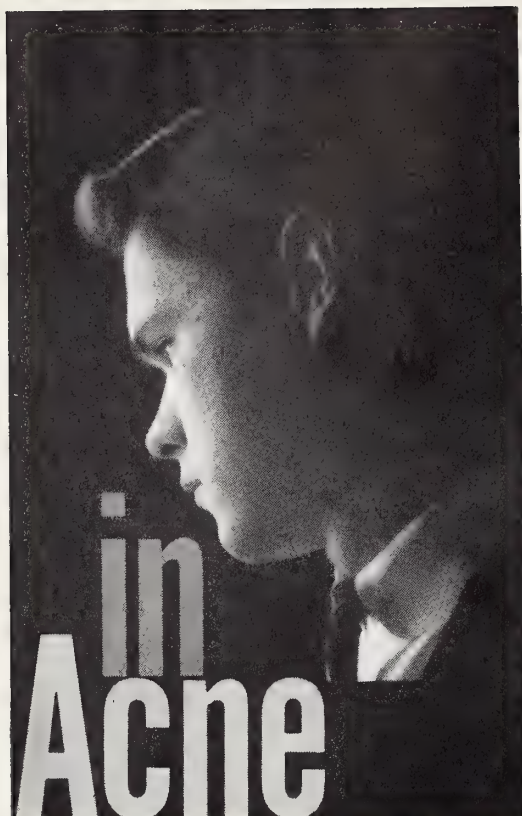
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CAPSULES: (blue-yellow) 250 mg. tetracycline HCl (buffered with citric acid, 250 mg.); 100 mg. tetracycline HCl (buffered with citric acid, 100 mg.). **ACHROMYCIN V DOSAGE:** Recommended basic oral dosage is 6-7 mg. per lb. body weight per day. In acute, severe infections often encountered in infants and children, the dose should be 12 mg. per lb. body weight per day. Dosage in the average adult should be 1 Gm. divided into four 250 mg. doses.

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1. Hodges, F. T.: *GP* 14:86, Nov., 1956.

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A new high-fat diet

It appears advisable to slowly reduce obese subjects with coronary atherosclerosis by low calorie diet. To reduce them rapidly is to put them on a high-fat diet, their own body fat. Some cardiologists have been impressed with the occurrence of acute myocardial infarction in subjects who have recently lost considerable weight in a short period of time. *Robert H. Bayley, M.D. Coronary Atherosclerosis. J. Louisiana M. Soc. Sept. 1957.*

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A hundred years ago

We presume it will be long before our free and enlightened citizens will submit to the inconvenience of laws regulating the sale of arsenic and other poisons, however much the welfare of the community may demand them. *Boston M. & S. J. Sept. 3, 1857.*

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When blocked or defeated in an enterprise I had much at heart, I always turned immediately to another field of work where progress looked possible, biding my time for a chance to resume the obstructed road. — Charles W. Eliot

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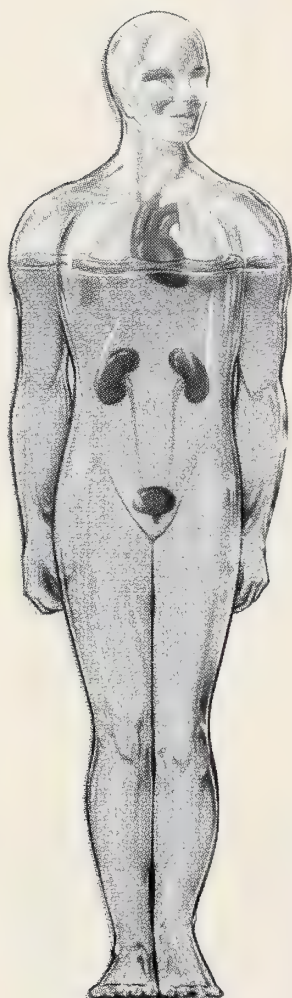
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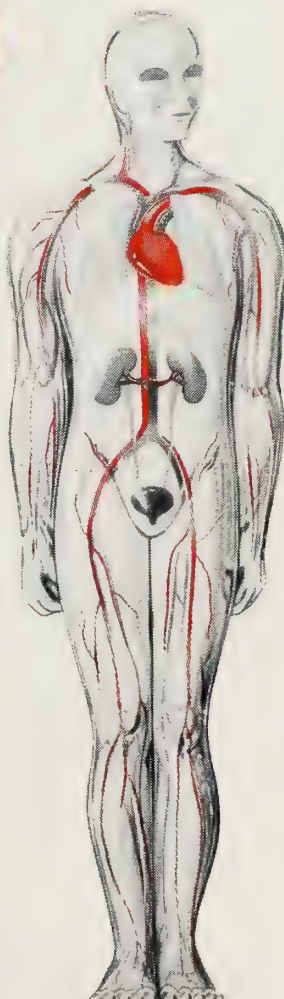
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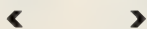
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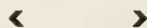
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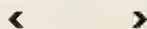
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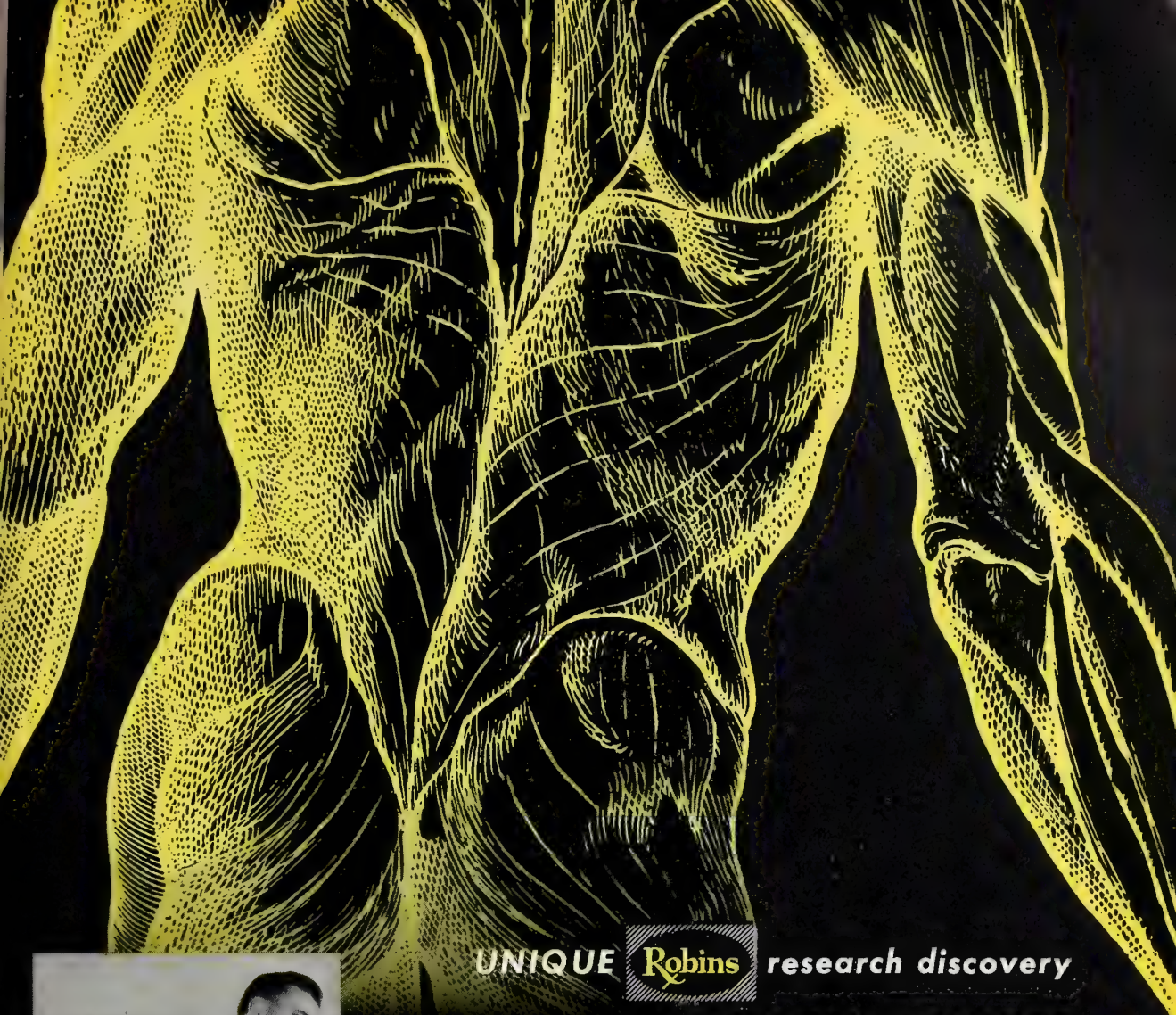
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The Month in Washington



Washington, D.C. — Those who are trying to follow the course of medical legislation, find an unusual situation developing in this session of Congress. All of Washington is being subjected to forces, some completely new, that often work at cross-purposes to each other. The result could be a moratorium on health legislation—or again it could be a flood of new laws.

At the start of the session, a newborn interest in science completely dominated the scene—by a frantic spending of billions of dollars we would overtake Russia. That was the theme in Washington, and it persisted despite a few quiet voices that asked whether Russia really had far out-distanced the U. S. or was merely exploiting a slight advantage.

Even before the American satellite started on its orbit, some of the panic had subsided, and most of the legislators had decided that advent of the space age had not removed all of the old problems and opportunities in legislation and politics. The familiar issues were still there, medical panaceas included.

The shock of Russian achievements will, at any rate, produce legislation designed to shore up our educational system. This seems to be generally accepted. For the medical profession, two provisions are of major interest. Scholarships would be either four years—possibly six—offering some assistance to premed students and in some cases to those in their first year of medical school. Also, fellowships would be available for medical and other graduates if they wanted to teach or go into research.

The administration's idea was a program that would cost a billion dollars; several leading

Democrats joined in a bill proposing three billion dollars as a stimulant to mathematics and science.

But there are other factors to be reckoned with. For the first time a President set down in black and white in his budget just how he proposed to withdraw the federal government from some activities, or limit its participation, and turn the programs back to the states. Mr. Eisenhower wants to slow down on the Hill-Burton hospital construction program and change its emphasis, he wants to mesh in some veterans' benefits with social security payments, he would have the states do more and the U. S. less in public assistance (where medical payments are a growing factor), and he hopes to get Congress to drop the \$50 million a year program of grants to help build water treatment plants.

Whether Congress will follow the President's lead in the back-to-the-states movement is another question. At least he has said specifically what he thinks should be done, and when.

There was no expectation that the Russian scare would dilute politics this election year—and it hasn't. If anything, the partisans are struggling harder than ever to make records that will reflect glory on them next November. Some of course, would be pressing for their projects regardless of the election.

So this is the prospect, in brief:

The Defense Department and science will get the major attention and the major money, but some may spill over into medicine.

There is some interest in a tight domestic budget and returning certain activities to the

(Continued on page 32)

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WASHINGTON (Continued)

states, but old fashioned politics combined with a fear of a continuing recession may again open up the federal purse.

Medical legislation, always a popular subject, may get more and more attention as the session rolls on. If so, the Forand bill among others would come immediately to the fore.

NOTES

Several developments in the legislative field on Jenkins-Keogh bills came early in the session. The American Thrift Assembly, representing some 10 million self-employed, urged favorable House Ways and Means action, and the American Medical Association pointed out that the proposal for tax deferment of money paid into retirement plans could help solve the problem of maldistribution of physicians.

In the Senate, a majority of the Small Business Committee introduced a tax relief bill with a J-K provision. The section would allow anyone not now benefiting from a qualified pension plan to set aside 10% of annual income (\$1,000 maxi-

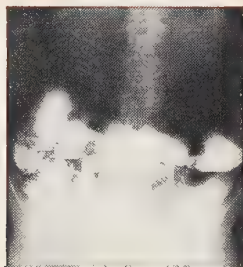
mum). The bill went to Senate Finance Committee.

A limited number of medical scientists from this country and Russia will give lectures in each other's countries this year in an exchange program worked out by the State Department and the Soviet government. Also planned are exchanges of medical journals between medical libraries and of medical films. All these are part of a broad scientific, cultural, and educational program between the two nations. Details haven't been worked out.

Six members of the Health Resources Advisory Committee have been named by Defense Mobilizer Gordon Gray. The committee, headed by Dr. Elmer Hess, advises government on health and medical problems in time of war or national emergency. Members are Dr. George C. Whitecotton, Oakland, Cal.; Dr. Franklin Yoder, Cheyenne, Wyo.; Dr. Mary Louise Gloechner, Conshocken, Pa.; Harold Oppice, DDS, Chicago; Dr. William Walsh, Washington, D. C.; and Frances Graff, R.N., Grand Rapids, Mich.

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MARCH, 1958
VOL. 113. NO. 3

The Acute Abdomen Due to Trauma

WILLIAM M. McMILLAN, M.D., CHICAGO

IT is my purpose to review the general problem of abdominal trauma and discuss the management of both penetrating and nonpenetrating abdominal injuries.

In former years, at Cook County Hospital, penetrating injuries to hollow viscera carried a mortality rate of around 60 to 70% while injuries to the solid viscera alone had a mortality rate of about 30%. In addition, if the injuries were accompanied by penetration of the chest, the mortality was increased. This rate has lessened gradually due to the advent of the antibiotics. Shock usually is marked in injuries to the hollow viscera while internal hemorrhage will most likely dominate the picture when solid viscera are injured.

So far as nonpenetrating wounds are concerned, in my experience, the most frequent injury is to the right lobe of the liver. Thereafter, come the spleen and kidneys.

Nonpenetrating abdominal injuries present some of the most difficult problems to the general surgeon. Penetrating abdominal wounds obviously require exploration but closed abdominal wounds always raise the question as to whether we should undertake surgery as such a procedure might adversely affect recovery of the patient.

Assistant Professor of Surgery, Northwestern University Medical School; Attending Surgeon, Chicago Wesley Memorial and Cook County Hospitals.

Presented before the 117th Annual Meeting, Illinois State Medical Society, Chicago, May 22, 1957.

It is my belief that we should always explore the patient if the diagnosis is in doubt. Prolonged observation in the presence of genuine suspicion that we are dealing with an intra-abdominal traumatic lesion only increases the risk and your sin usually is on the side of not operating.

I would like, however, to emphasize that immediate exploration should not be carried out. First, urgent associated injuries must be considered and attended to. They include wounds to the head, neck, and extremities as well as cardiorespiratory dysfunction due to injuries to the contents of the thoracic cavity. While such injuries should not delay abdominal exploration unduly, they must always be considered and dealt with accordingly. Too often our attention is directed to the abdomen entirely and we forget that we must deal with the patient as a whole. In addition, certain preoperative considerations are mandatory. First, shock must be combated and the patient not rushed to the operating room after a single blood transfusion. After primary treatment of shock, if the blood pressure fails to rise above 80, for practical surgical purposes we should assume our picture is due to hemorrhage.

An immediate evaluation of the blood picture is especially helpful in liver and splenic injuries. A scout film of the abdomen is at times of great value, not only for injuries of these organs as indicated by enlargement. The presence of free air in the peritoneal cavity or in the retroperitoneal tissues is significant and elevation of the

left diaphragm, if present on X-ray, would lead us to suspect injury to this structure. However, no laboratory test can substitute for frequent and painstaking evaluation by the alert clinician. Final decision for exploration in the doubtful case may well depend upon findings of abdominal pain, tenderness, and muscular rigidity.

If surgery is decided upon, an adequate airway must be maintained, a needle must be in the vein for intravenous therapy, and a tube in the stomach and in the urinary bladder. Blood must be available for transfusion and tetanus protection given. A great deal of information may be obtained by the return or lack of return from the stomach and urinary bladder. This may help in determining whether rupture of these organs has occurred or hemorrhage within the organ is present.

Once surgery has been undertaken, whether we are dealing with an open or closed abdominal injury, the procedure is the same except that all penetrating wounds must be explored regardless of their apparent size or depth to determine whether or not the peritoneum is intact. In general one of the most frequent errors in exploration is lack of thoroughness. An adequate incision is essential and after opening the abdomen, it is well to start proximally and proceed distally, inspecting all of the viscera. Too often we see an exploration that consists only of investigation and correction of the obvious areas of injury, leaving unrepaired injuries that result in a fatality. I cannot leave this portion of my discussion without again stating that the greatest single error in the management of abdominal injuries is failure to do an adequate exploration. This usually results from an inadequate incision or, in doubtful cases, failure to start at the esophageal hiatus and complete the exploration down to the peritoneal reflexion over the rectum. There are, of course, times when one can visualize the path of a bullet or stab wound and thus reconstruct its pathway sufficiently to leave little doubt as to the location of the visceral injuries.

I would now like to discuss specific problems confronting the surgeon after the abdomen is opened. First, in the presence of severe hemorrhage, grasping the main blood supply between the fingers or pressure on the abdominal aorta, may be life saving where massive hemorrhage results from release of tamponade by opening the abdomen.

The spleen frequently is ruptured or ruptures on opening the abdomen where a large subcapsular hemorrhage has occurred. In such circumstances, attempt to control the pedicle with finger pressure and then secure the vessels by rotating the spleen upward and medially. I mention this because it is not uncommon to lose the patient either by failure to control hemorrhage or by producing complications by injudiciously placing a large clamp from the medial position, grasping not only the splenic vessels but the pancreas all in one large bite. Most injuries to the aorta, iliac vessels, and vena cava are fatal before surgery is undertaken but if not, arterial suture usually will be successful. Certain other vessels, such as the portal vein and hepatic and superior mesenteric arteries, should be repaired if possible. Intramesenteric hematomas should be approached cautiously and, unless they are enlarging and if there is a distal palpable pulse, they should not be disturbed. If they continue to enlarge and evidence of interference of the blood supply to the bowel is present the mesentery must be opened and the vessel ligated. In the case of a confined retroperitoneal hematoma with limited bleeding, drainage should be instituted and the bleeding point ligated if possible. Bleeding from other vessels requiring ligation gives rise to individual problems, depending upon the organ supplied.

The stomach and duodenum are the most frequently overlooked areas of injury, especially on their dorsal surfaces. Therefore, the gastrocolic ligament must be opened and the lateral surface of the duodenum exposed by retraction to determine whether or not injuries have occurred in these areas. In the case of wounds of the colon, where the blood supply is compromised and there is considerable destruction of tissue, the colon should be exteriorized. If this is impossible, a proximal diverting colostomy and resection must be carried out. It has been my custom, however, where a single injury to the colon has occurred and the mesentery is not involved, to do a primary resection without a proximal colostomy. However, where an injury of this type has occurred due to a bullet wound, a rather wide resection of the injured area must be performed because of the nonvisible injuries to the tissues due to the high velocity of the bullet. It also is extremely important to establish drainage of the

extra peritoneal space where penetration of the dorsal peritoneum has occurred. Failure to observe this principle, in my opinion is responsible for many fatalities. In case of air blast injuries, the bowel usually is ruptured at its points of attachment. Treatment of such injuries is the same as previously described except that if injuries exist below the peritoneal reflexion, wide drainage usually constitutes the only surgery necessary. Wounds of the small bowel should not be exteriorized but continuity should be established, remembering the necessity of wide excision about the bullet wound.

A fairly good rule, as suggested by McNealy in connection with small bowel injuries, is to regard resection as the procedure of choice in the following circumstances:

- (1) Where the injury is irregular and involves one-third or more of the bowel circumference.
- (2) Where the injury involves the mesenteric side of the bowel and injures the mesentery.
- (3) Where two or more wounds of the intestine occur within a longitudinal distance of three inches.
- (4) Where several extensive wounds occur in a comparatively limited section of intestine.

Wounds of the kidney should be treated conservatively wherever possible and drainage maintained. Wounds of the spleen require splenectomy but at times they are difficult to diagnose as they occur after minimal trauma, especially in those suffering from an enlarged spleen as in infectious mononucleosis. Where injury to the spleen is suspected I would urge that all patients should be kept under close observation for at least two weeks following trauma because of the possibility of delayed rupture. These injuries are at times deceiving. Never attempt to suture the capsule of the spleen as this is impossible.

In liver injuries, most of those encountered in civilian life are of the nonpenetrating variety and are due to automobile accidents. If disruption of the organ has been extensive, bleeding is the major problem with bile peritonitis and intoxication from devitalized liver as secondary but important problems. Liver injuries should be thought of and considered in any case of major abdominal trauma and exploration undertaken.

Nonpenetrating wounds of the liver can be grouped as follows:

1. Rupture of the capsule and parenchyma
2. Rupture of the parenchyma with intact capsule
3. Central fragmentation with intact capsule and periphery

The surgical management consists of control of hemorrhage, establishing drainage, and the removal of devitalized liver tissue. It has been well established experimentally that devitalized liver tissue is extremely toxic to the patient if not removed. Persistent attempts at suturing the liver, unless easily accomplished, may lead to disaster if the injury is extensive or not easily exposed. Many times, however, liver injuries can be sutured, employing mattress sutures tied over muscle and the employment of Oxycel® or other material of your choice. If suture cannot be accomplished, the liver should be packed and the pack loosened on the fourth postoperative day in the operating room and removed on the tenth postoperative day. Drainage not only prevents bile peritonitis but alerts one to further bleeding. Any contamination of the abdominal cavity, especially when due to damage to the viscera above the umbilicus, carries with it the strong possibility of a subdiaphragmatic abscess on the right or left sides. Therefore, drainage is indicated not only in liver injuries but also in other upper abdominal injuries.

Injuries to the diaphragm constitute one of the most frequent errors in management of abdominal trauma because they are so frequently overlooked. They should be borne in mind when reviewing X-rays in suspected cases, and in addition an upper and a lower gastrointestinal X-ray study may be of help in doubtful cases. Finally, when abdominal exploration is carried out we must find and repair such injuries if present.

Good postoperative management is most important and in many instances means the difference between recovery and a fatality. Repeated hematocrit readings with restoration of a normal blood picture, adequate fluids, and proper electrolytic balance are important. The necessity of adequate pulmonary ventilation, with prevention of atelectasis, and if such occurs, early recognition and treatment must be constantly kept in mind. Finally, appropriate antibiotic therapy is required.

Caprices of Infectious Mononucleosis

SHELDON E. KRASNOW, M.D., OAK PARK

Infectious mononucleosis, ordinarily considered a disease that presents with a flu-like picture and is characterized by lymphadenopathy and fever, may manifest itself in a number of other symptom complexes.

Some of the reported complications include:

1. Hepatic involvement is so common it is considered as present in virtually every patient.

2. Severe neurologic complications have been reported in about 60 patients but the incidence of this complication has been increasing. This is probably not a rare manifestation of this prototype disease.

3. Blood complications have included: a) thrombocytopenic purpura, b) hemolytic anemia, and c) ruptured spleen. Anemia in infectious mononucleosis is uncommon. Its presence in such a patient should arouse suspicion of hemolytic anemia, which may be the main presenting problem. Spontaneous rupture of the spleen is most commonly due to malaria but infectious mononucleosis ranks as the second most common cause.

4. Cardiac complications have been reported rarely. They include electrocardiographic changes and a few cases of myocarditis and pericarditis.

5. Skin, eye, and kidney complications have been seen.

I would like to present the records of several patients which demonstrate some of these clinical pictures. The first represents a common office problem.

R.C. a 17 year white female was first seen in the office on October 15, 1956 because of fever and headache of four days' duration. Physical examination revealed a normal female except for a temperature of 101 degrees F. She was instructed to take salicylates and stay at home but returned on October the 18th

with the same complaint. Examination revealed only a pea-sized cervical and axillary lymph node. In the following week fever and malaise persisted, and she was seen again on October 26.

At this time the differential white blood count revealed 15,050 cells with 79% lymphocytes, many of which were atypical. A heterophil agglutination done at this time was again negative. Re-examination one week later revealed the patient feeling better, the white blood count was unchanged, and the heterophil agglutination was 1/224 and diagnostic of infectious mononucleosis. The patient made an uneventful recovery.

This patient was unusual in several ways: the marked paucity of clinical findings and the fact that the typical changes in the white blood count were not noted until the 15th day of illness. Usually lymphocytosis with marked pelomorphism of the lymphocytes occurs in the first two weeks of illness. Only occasionally does it take a longer period to develop. The heterophil agglutination titer frequently is negative in the first week of illness but in most patients a significant elevation is observed by the end of the second week. In this patient a diagnostic titer was not observed until the end of the third week of illness. According to Davidsohn, a heterophil agglutination titer of 1/224 is diagnostic of infectious mononucleosis *if* the clinical and hematologic findings are characteristic of the disease. At times the heterophil agglutination may be of rather short duration and can be missed unless serial determinations are done. Many diseases such as serum sickness, viral hepatitis, viral pneumonia, Hodgkin's disease, leukemia, polycythemia, sarcoma or tuberculosis may cause some elevation of the heterophil titer. In patients who do not present characteristic clinical and hematologic findings, the Davidsohn modification of the Paul-Bunnell test should be performed. In this test, heterophil antibodies due to infectious mononucleosis are not absorbed on guinea pig kidney, whereas antibodies due to other causes are absorbed. Heterophil antibodies due to infectious mononucleosis are readily absorbed by beef cells, whereas those

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due to other diseases may or may not be absorbed.

This first patient presented low grade fever and malaise but did not present the typical white blood count change until the 15th day and the heterophil titer was first recorded elevated 21 days after the onset of illness.

D.K., a 20 year white male, was admitted to the hospital on 23 March 55 with a history of gross hematuria for five days (preceded by a fall with some flank pain on the previous day), epistaxis, gum bleeding, and a generalized petechial eruption for four days. He gave a history of sore throat (four weeks prior to admission) for one week and malaise and anorexia for four weeks. Examination revealed a well developed, well nourished, nonjaundiced male with a generalized petechial rash which also involved the oral mucosa. There were bilateral, nontender, cervical and axillary lymph nodes measuring up to two cm. in diameter. The spleen descended 2 cm. below the left costal margin on inspiration, and the liver was not palpable. The initial hemogram revealed a normal hemoglobin and red blood count. The white blood count was 12,450 with 61% lymphocytes, many of which were atypical. The bleeding time was longer than 15 minutes, coagulation time $3\frac{1}{2}$ minutes (cap method), the platelet count was zero. The blood proteins, NPN, icteric index, thymol turbidity, bromsulphothalein liver function test, and Coombs test were normal. The cephalin flocculation was three plus in 48 hours, and the heterophil agglutination was 1/112 and, after guinea pig kidney absorption, was 1/56 (a diagnostic titer). The sternal bone marrow was compatible with idiopathic thrombocytopenic purpura and infectious mononucleosis.

The combination of clinical, hematologic, hepatic, and serologic findings were diagnostic of infectious mononucleosis. In addition the patient's main clinical problem was thrombocytopenic purpura. He was treated with corticotrophin by the slow intravenous drip method (using 50 units in 1000 cc. of glucose daily). In spite of this therapy nasal bleeding was severe and the patient received 2500 cc. of blood. On the 10th day of therapy, cortisone was started in doses of 100 mg. every six hours. On the 13th day the patient was clinically improved with no nasal bleeding for the first time. On the 17th day the platelet count had risen to 64,000 and the 18th day, with a platelet count of 110,000, the patient was discharged on gradually decreasing doses of cortisone. Thereafter he made an uneventful recovery.

In patients with infectious mononucleosis a mild bleeding tendency is not uncommon. Thrombocytopenic purpura, however, is rare, being recorded in the medical literature in only 16 patients. Usually it occurs at the height of the disease. As in acute idiopathic thrombocytopenic purpura, thrombocytopenic purpura in in-

fectious mononucleosis may be treated with steroid therapy. Splenectomy is reserved for the patient desperately ill with severe hemorrhage that is not controllable with steroid management. There is an added risk to surgery in the patient with infectious mononucleosis and that is the presence of liver dysfunction in the majority of patients. As has been well documented in five to 10 per cent of patients, hepatitis is the major clinical problem.

The next two patients demonstrate different degrees of hepatic dysfunction. They both received hospital care at the West Side Veterans Administration Hospital and are presented through the kindness of Dr. Hyman Zimmerman, Chief of Medicine at this hospital.

H. G. W., a 21 year white male, was admitted on December 10, 1956 with a history of sore throat, tender cervical glands, and malaise of four days' duration. Physical examination revealed a well developed, well nourished male with a temperature of 102 degrees, marked pharyngeal injection, petechiae of the soft and hard palate, bilateral tender cervical adenopathy, nontender splenomegaly 2 cm. below the left costal arch, and hepatomegaly of 3 cm. below the right costal arch.

Temperature returned to normal on the second hospital day and the hepatosplenomegaly subsided gradually. The patient was discharged on the 25th hospital day. The only evidence of liver involvement was hepatomegaly, the two plus cephalin, and a BSP retention of 11%. This is the usual degree of liver involvement noted in infectious mononucleosis. (See table 1).

R. E. H., a 26 year white male, was admitted to the hospital on September 16, 1955 with a history of malaise and headache of one month's duration. Physical examination revealed moderate scleral icterus. There were petechiae of the soft and hard palate. Moderate nontender discrete anterior and posterior cervical adenopathy was noted. The liver descended 4 cm. below the right costal arch and the spleen descended 3 cm. below the left costal arch. On admission the patient was placed on absolute bed rest and a special diet. During his hospital stay he improved gradually. Liver biopsy revealed mononuclear infiltration of the portal fields and focal infiltration of the parenchyma with some associated hepatic cell necrosis. (For laboratory findings see Table 1).

Sections of liver in patients with infectious mononucleosis examined at biopsy and autopsy have shown one of several changes. The most common is mononuclear infiltration of the portal fields with or without similar infiltrations in the sinuses and hepatic lobules. In some patients, as in the last one presented, focal necrosis of

hepatic cells has been seen in association with the mononuclear infiltration. Moderate swelling of the Kupffer cells, vacuolization of the hepatic cell nuclei, and neutrophilic infiltration of the portal fields also have been observed.

In most patients with infectious mononucleosis there is some laboratory evidence of hepatic dysfunction such as elevated thymol turbidity or abnormal cephalin flocculation and modest BSP retention. Jaundice in patients with infectious mononucleosis usually is intrahepatic in origin and associated with the mononuclear infiltration as just described.

Infectious mononucleosis may be associated rarely with hemolytic anemia and jaundice is then prehepatic in origin. Infectious mononucleosis has been observed occasionally in patients with congenital hemolytic anemia, and in these patients a hemolytic crisis has been observed. In infectious mononucleosis then, jaundice usually is associated with laboratory evidence of hepatitis and liver biopsy evidence of mononuclear infiltration. On rare occasion, hemolytic jaundice may occur.

Severe neurologic complications are uncommon in infectious mononucleosis. The cases reported have included meningitis, encephalitis, Guillain-Barre syndrome, peripheral neuropathy, and various combinations of these clinical syndromes. The spinal fluid has varied from normal to one demonstrating increased pressure, protein, or cells which usually are lymphocytes. There may be combinations of these findings. The prognosis, although usually good, may on occasion be poor and fatalities have been reported. As with many other diseases, the more often infectious mononucleosis is considered in the differential diagnosis of acute neurologic disease, the more often is it found.

The following patient demonstrates such a diagnostic problem:

C. H., an 8 year old female, sustained a minor injury to the head on April 19th. There were no signs of bruising and she was not unconscious. On the following day she appeared lethargic and tired. Lethargy increased in the following two days and she became unresponsive. She was hospitalized on April 24th. Examination at this time revealed a well developed, unresponsive girl with a temperature of 99.6 degrees orally. Neurologic examination was negative except for the semicoma. X-rays of the skull and spinal fluid examination were normal as were hemoglobin and red blood count. The white blood count revealed 5,000 cells with 72% lymphocytes, 10 per cent of which were atypical. Electroencephalogram revealed generalized slowing with focal slowing over the occipital areas. A heterophil agglutination was 1/112, and with guinea pig absorption there was a titer of 1/56. The differential diagnosis included subdural hematoma and brain tumor. The working diagnosis was encephalitis, and with a borderline type of lymphocytosis, the presence of a heterophil agglutination titer of 1/56 after guinea pig kidney absorption was vital in the diagnosis. Marked lethargy persisted until May 3rd (two weeks after the onset), when, over the course of several hours, she suddenly became alert and made an uneventful recovery. Repeat heterophil agglutination studies on May 13 revealed a similar titer to the one taken April 26.

Several patients with infectious mononucleosis have been presented, one with a delay in lymphocytosis and heterophil agglutination change; another with thrombocytopenic purpura; two with different degrees of liver involvement; and one with encephalitis. With the marked variability of organ system involvement, infectious mononucleosis should be considered in many acute diseases. The use of the heterophil agglutination and Davidsohn modification, coupled with the study of the lymphocytes, gives us helpful tools in diagnosis.

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Nonperforating Injuries of the Anterior Segment of the Eye

CLARENCE V. WARD, M.D., PEORIA

I WILL confine injuries of the anterior segment to injuries of the cornea and iris, including the vascular complications, and to the iris and ciliary body.

A nonperforating injury of the globe can be caused either by a direct blunt blow to an eye or to the neighboring structures or it can follow an explosion type injury close to an eye. It is in reality a contusion of the contents of the eye in which the fibrous tunic of the eye remains intact. When the impact of a blunt force is applied anteriorly to an eye, the resulting wave of pressure ignites a series of mechanical, physiological, and chemical changes to the structures within the eye.

The mechanical changes are the most evident and best understood. The wave of pressure resulting from a sudden force anteriorly acts in all directions at once, hurling the ocular contents peripherally against the tough outer tunic. To this concept must be added the fact that within the globe there are a number of highly different types of structures in intimate association with each other. There are vascular, avascular, and nervous tissues and tissues that are frail and delicate or solid and firm. There are structures that are fixed and that float in a medium half fluid and half gel. None is without importance. Is it any wonder then that serious complications can arise from some of the most seemingly innocent nonperforating injuries of the eye?

The amount of damage rendered by a contusion to an eye depends upon three chief factors:

- (1) The amount of damage to the tissue cells themselves.

- (2) The amount and type of vascular complications.

- (3) The gross effects of tearing and laceration of the tissues.

Perhaps little can be done to influence the first factor but some control can be exerted over the latter two.

Duke-Elder believes that the nerve and other cells suffer disarrangement and fragmentation of the structures within the cell beginning immediately after an injury. This is accompanied by a disturbance to the walls of the capillary vessels resulting in vasoparalysis, capillary dilatation, slowing of the blood stream, and the escape of tissue fluid and cellular elements into the surrounding tissues. The resulting edema, swelling, and hemorrhage allow certain enzymes to exist in an acid medium created by the anoxia. The enzymes are believed to help break down first the more highly differentiated nervous cells and then the interstitial cells, thus resulting in a process of autolysis, liquefaction, and necrosis. Theoretically then, is it not plausible that if the stage of edema and hemorrhage could be controlled, the amount of liquefaction and necrosis would be minimal, thus preventing permanent atrophy and loss of function?

The third factor determining the degree of damage depends upon the amount of laceration and tearing of the tissues. Gross solutions in the continuity of tissues such as tears of the iris and ciliary body can result in frank hemorrhages of the anterior chamber with all its consequences. Certainly this third factor and its complications will at times demand the most astute ophthalmological care.

THERAPEUTIC MANAGEMENT

As thorough an examination as possible,

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without further damaging the eye, should be made. Make certain in all instances that the eyeball is not lacerated or that a foreign body has not entered the globe or orbit. Some estimation of visual acuity is desirable.

Examination of a nonperforating injury to an eye often is unnecessarily delayed for two reasons. First, in the presence of severe body injuries elsewhere, an eye injury is relegated to a position of secondary importance. This was often evident under the stress of modern warfare. Secondly, because of the nature of the lax subcutaneous tissues of the eyelid and conjunctivae, tremendous ecchymosis and chemosis can follow trauma to a periorbital region to such an extent that proper examination of the injury actually is hindered and thus delayed. This difficulty might be eliminated by the relief of pain and blepharospasm through the use of a topical anesthesia. In the extreme case, akinesia of the lids can be secured by the O'Brien technique. Cold compresses initially are indicated. Relief of edema, ecchymosis, and chemosis can be further hastened by the use of one of the proteolytic intramuscular enzymes now receiving attention.

All teachings stress the importance of observation, rest, sedation, and bandaging. Certainly it is true that a great many contusions of the eye heal without complications with nothing more than bandaging and bed rest. Rest and quiet are advisable for at least a week following a severe injury to the anterior segment because if a secondary anterior chamber hemorrhage occurs the prognosis becomes more unfavorable. A secondary hyphema typically occurs on the second or third and sometimes the fourth or fifth post-traumatic day.

A binocular bandage is advisable for all cooperative patients. However, in children a binocular coverage may be contraindicated if it increases restlessness. The judicious use of a sedative, mild narcotic, or tranquilizers is indicated.

If, upon initial examination of an eye following a contusion type of injury, the anterior chamber is free of blood, then a mydriatic and probably a weak one is indicated, especially if a tear or an iridodialysis of the iris is present without hemorrhage. In the absence of blood in the anterior chamber in the succeeding days, a stronger mydriatic may be indicated.

There has been some disagreement among ophthalmologists as to whether to use a miotic or a mydriatic in the presence of a traumatic hyphema. The question is whether to attempt to promote absorption of the blood by increasing the absorption space of the iris and angle with the use of a miotic, thereby treating the frequent secondary glaucoma, or to consider the inflammatory aspects of the iris and ciliary body by rest with the use of mydriatic.

The older texts and teachings favored mydriatics and even atropine. Rychener² recommended miotics, stating that, used immediately after an injury, they resulted in less secondary hemorrhage and less necessity for surgical procedures. Fralick, in discussing Rychner's paper, was of the same opinion although he recommended atropine later. Chandler also agreed on miotics. Thygeson and Beard³ favored 5% homatropine four to five times daily unless a hemorrhage occurred and then they recommended strong miotics. Duke-Elder¹ in his latest volume states, "In the presence of a hyphema, expectant treatment without the installation of atropine is probably the safest course as long as the tension is normal or low. If anxiety is felt the installation of a miotic rather than a mydriatic at an early stage may forestall the complication of a hyphema."

The most frequent complication of an anterior chamber hemorrhage is secondary glaucoma. The next most frequently mentioned complication, and one that requires the presence of an elevated intraocular pressure, is the classical "blood staining of the cornea." This can be a permanent catastrophe. Macroscopically the condition varies in color from rusty brown to a greenish black or gray disciform staining of the cornea with a clear periphery. Clearing begins from the periphery leaving a central gray patch which turns white and unsightly if glaucoma persists. It is believed that an intraocular tension of 35m.m. Schiotz for 24 hours in the presence of an anterior chamber hemorrhage will cause some blood staining of the cornea.

In addition to using a miotic in the presence of a traumatic hyphema, it would seem logical to use some agent that could effectively control the amount of aqueous formation when there

is danger of increased pressure. Diamox®, is such a drug. It is a carbonic anhydrase inhibitor that can suppress partially the secretion of aqueous thereby lowering intraocular pressure independently of the outflow mechanism. Becker reports that in normal eyes, as well as those with various types of glaucoma, up to 86% of all eyes responded to at least 40% inhibition of flow. Included in this series were some cases of traumatic hyphema. Thus it would seem that the short term use of this potent aqueous inhibitor is a helpful adjunct to the conventional methods of treating secondary glaucoma due to hyphema. It seems likely that it should prevent the dire consequences in many cases and aid in the preparation of surgery for others.

The second newer therapeutic agent that the ophthalmologist now has available is one of the proteolytic enzymes. The idea of using an enzyme for its proteolytic and anti-inflammatory properties has been known for some time as trypsin was first isolated in the pure crystalline form in 1932. However, it was not until approximately 1952 that the enzymatically induced anticoagulation, thrombolysis, and fibrinolysis properties of trypsin were first used for ocular conditions. The value of a proteolytic enzyme for the lysis and absorption of a blood clot in the anterior chamber may be a controversial issue. I have used trypsin and chymotrypsin in the past 10 cases of traumatic hyphema and feel they hastened absorption of blood. However, Keeney and Zaki¹¹ reported that the intramuscular administration of trypsin was found to have no appreciable effect on the absorption of experimental hyphema in the guinea pig. Either trypsin or chymotrypsin can be used intraglutely in doses of 1/2 cc. to 1 cc. daily. A proteolytic enzyme should never be injected directly into the eye.

Paracentesis is indicated within 24 hours if an anterior chamber is filled with blood and accompanied by any elevation of intraocular pressure. This is done in such a manner that re-opening through the wound afterwards can be accomplished. I feel that lavage of the anterior chamber and manual removal of a clot with instruments is both dangerous and unnecessary. It is dangerous because it is difficult to follow the instrument through the blood clot and the iris and lens may be damaged; unnecessary be-

cause the desired effect is to achieve a reduction in pressure which in turn will clear the anterior chamber. An air bubble at the time of the paracentesis will help to prevent such complications as the development of peripheral anterior synechiae.

While many physicians give antihemorrhage drugs such as calcium, vitamin C, vitamin K, or rutin, their value is doubtful. Thygeson and Beard⁵, after recording normal bleeding, clotting, and prothrombin times believe that the problem of traumatic hyphema is not closely related to clotting abnormalities.

It is now well established that corticosteroid therapy effectively checks destructive inflammatory reactions to ocular trauma whether allergic, infectious, anaphylactic, chemical, or mechanical in origin. If the type of injury to the anterior segment is such that it causes a thickened edematous cornea with or without folds and wrinkles, a clouded aqueous, and a swollen iris without hemorrhage then I believe that corticosteroid therapy is indicated both topically and systemically.

It should be noted that in recommending the corticosteroids, the proteolytic enzymes, and Diamox, all the normal precautions and contraindications of these agents be carefully considered. Also mention should be made that all of the previously suggested therapeutic agents and methods should not have anything but a beneficial effect upon the commonly coexisting posterior segment injuries.

Surgical intervention, other than the previous mentioned paracentesis, probably is necessary only for the repair of an iridodialysis if it is sufficiently extensive and not covered by the upper lid. Such repair should not be attempted for two or three weeks after an injury. If the sphincter of the iris is ruptured the pupil becomes dilated and may not react to light or accommodation. The condition remains permanent but may be helped with the use of miotics.

CONCLUSIONS

1. I believe that the proper management of nonperforating injuries to the anterior segment calls for something in addition to the well worn advice of "little action and considerable patience on the part of the ophthalmologist."

2. An adequate examination and evaluation

of the extent of the injury is necessary.

3. A secondary type of traumatic hyphema carries an unfavorable prognosis and must be prevented if possible and treated wisely if present.

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Postoperative care

Many surgical patients receive nothing by mouth during the early postoperative period because of either the desire of the surgeon to keep the gastrointestinal tract at rest, or anorexia. Such patients should receive nutrition intravenously. One of the commonly used methods of maintaining surgical patients during this period is to give them two or three liters of either five or ten per cent sugar solution which may or may not contain some sodium chloride. Such a regimen provides 400 to 1,200 calories; thus it not only is deficient in calories but is devoid of utilizable nitrogen, essential electrolytes (notably potassium), and vitamins. From a nutritional viewpoint it is highly desirable to supply insofar as possible all the essential materials

needed for the fabrication of tissue. Otherwise, despite the most skillful surgery, the patient's convalescence will be unnecessarily prolonged and complicated.

By giving the postoperative patient solutions of protein hydrolysates containing ten per cent hexose it is possible to administer about 12 gm. of nitrogen 1,100 calories using only two liters of fluid. Such preparations contain added potassium as well as some sodium and chloride. It is possible to further increase the caloric content of the regimen by giving an additional amount of the same solution or one containing, in addition, slightly higher concentrations of hexose and two to five per cent alcohol. *Editorials and Comments. Nutrition in the Surgical Patient. J.A.M.A. Dec. 7, 1957.*

Blood Coagulation

**AARON M. JOSEPHSON, M.D., DIRECTOR, DEPARTMENT OF HEMATOLOGIC
RESEARCH, MICHAEL REESE HOSPITAL**

Doctor Robert Adolph: Ten years ago the mechanism of blood clotting seemed quite simple. Three short formulae containing the few factors then known, expressed the conversion of fibrinogen into a fibrin clot. Since World War II, however, the accumulation of knowledge in this field has been rapid, and its dissemination poor. The confusion in the literature is in large part due to the lack of uniformity in terminology. Dr. Aaron Josephson, who is Director of Hematologic Research at the Michael Reese Hospital, Chicago, promises to shed some light on this important subject.

Dr. Aaron Josephson: As you imply, Dr. Adolph, semantics has become a major deterrent to a clear understanding of the literature relating to coagulation. Prior to World War I the conversion of fibrinogen to fibrin had been established, and in 1933 the prothrombin time was first measured. With the development of variations of the test, coagulation became a fruitful field for investigation, and multiple factors influencing the speed of coagulation were discovered. Each laboratory began to theorize on the mechanism of clotting and each group has tenaciously preserved its own nomenclature.

Let us first review the methods used in detecting the factors involved in clotting. Except for fibrinogen, these substances have not been chemically isolated and purified, and so cannot be measured in the usual manner. They are in a sense ethereal substances, the existence of which can be deduced only from tests whose end result is the time required for a fibrin clot to form. Quantitation is almost impossible. The normal value for any factor has a wide range in presumed normal individuals. In addition, the precision of the tests of clotting is poor, and the results are not always comparable between laboratories. The classic Lee-White clotting time is done in five or six different ways, and even the same method is not comparable when done by

different people. Methods for cleaning and rinsing the test tubes, the amount of agitation, degree of tilt, and degree of clot accepted as the end point are all variables.

The formulae in Figure 1 depict the generally accepted concepts of blood coagulation at the present time. Factor VII, factor X, and Stuart factor, may not be very important in clinical conditions. Many factors have been labeled because something seemed to be missing in a particular serum.

The concept of hemophilia as a deficiency of anti-hemophilic globulin (A. H. G.) is accepted by all but a few laboratories which believe the disease may be due to an inhibitor that is present in the serum. Many different bleeding diseases have been described and named, e.g. hemophilia, hemophilia B, pseudohemophilia, parhemophilia. The whole class has sometimes been referred to as "hemophiloid diseases," with resultant confusion.

True hemophilia is a single disease entity. It is hereditary, and the method of transmission has been well established. It is a sex-linked recessive trait which when present in the female is opposed by normal dominant allele on the X chromosome. If the recessive gene is transmitted

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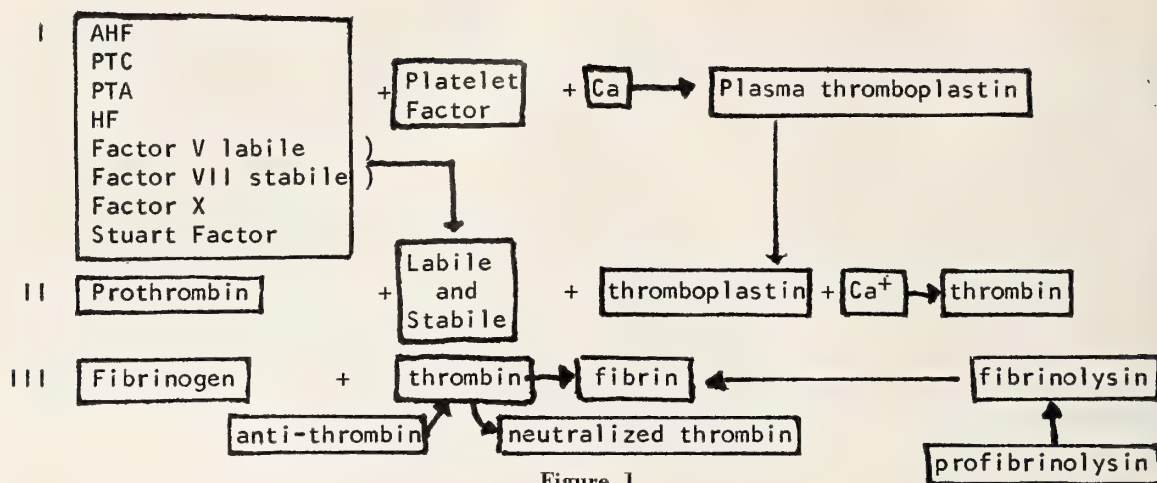


Figure 1

to the male, however, its influence is unopposed, as there is no homologous locus on the Y chromosome, and the trait becomes manifest. The disease is characterized by hemarthroses, multiple bleeding episodes and usually resultant disfigurement. In 1948 a person thought to have hemophilia was discovered whose clotting defect was corrected by mixing his blood with that from a known hemophiliac. This deficiency has subsequently been labeled P. T. C. (platelet thromboplastin component) deficiency or Christmas disease (the disease was discovered in a boy named Christmas). Other diseases of this type have been discovered in a similar way, that is, by mixing the blood of the diseased individual with blood from patients with previously diagnosed bleeding disorders to see whether or not the clotting deficiency will be corrected. P. T. A. (platelet thromboplastin antecedent) deficiency was discovered in this way four years ago by Rosenthal. Clinically P. T. C. and hemophilia are quite similar in their symptomatology. P. T. A. is milder, is not sex-linked, and is corrected by small amounts of normal plasma, e.g. 100 cc.

Another interesting deficiency state is that described by Ratnoff in which the patient is asymptomatic, but the clotting time and other tests of clotting are abnormal. This disease is usually discovered while doing a routine clotting time prior to surgery. These patients, however, tolerate surgery without unusual bleeding. Four families with a deficiency of Hageman factor have been described, and it is probably inherited as a non-sex-linked recessive trait. The clotting time may be as long as one hour and the throm-

boplastin generation test is abnormal. The abnormality is corrected by 10 to 100 cc. of normal plasma.

Defects in the clotting mechanism generally can be divided into two broad categories: 1) abnormalities of the platelets and blood vessels, 2) abnormalities of blood factors. Purpura can be classified as vascular or thrombocytopenic.

Following injury a cut blood vessel contracts and retracts and may in this way stop bleeding. In larger vessels the pile-up of platelets may plug the cut. In still larger vessels the formation of a fibrin clot is necessary for hemostasis. The platelets break up, releasing the platelet factors, which initiate the clotting reactions. Thromboplastin-like substances are found in many tissues, and are especially rich in brain, lung, and placenta.

How then are laboratory techniques employed to document a specific deficiency state? Citrated whole blood, after mixing with barium sulfate, can be separated into a supernatant and barium sulfate phase. The supernatant contains A. H. G., P. T. A., Hageman's factor, and labile factor (factor V). The barium sulfate phase contains P. T. C., P. T. A., factor VII, and prothrombin. Serum, after clotting, contains P. T. C., P. T. A., factor VII, and Hageman's factor. In patients with clotting defects appropriate mixing of samples of patients' blood, normal serum, and serum from known hemophiliacs prepared in the above manner can, by cross-elimination, identify the factor responsible for the clotting deficiency.

In the thromboplastin generation test, the patient's barium sulfate plasma, the patient's

platelets, and the patient's serum are separated and then are recombined in various combinations with similar fractions from normal people. Delayed coagulation after one to six minutes incubation means decreased thromboplastin formation. Normal barium sulfate plasma will correct A. H. G., P. T. A., Hageman's factor, and factor V deficiencies.

Many of the large coagulation laboratories maintain a bank of abnormal sera and plasma from patients with clotting defects for testing against unknown sera. A. H. G., P. T. A., P. T. C., and Hageman's factor deficiencies are specific laboratory entities; they cannot, unfortunately, be accurately quantitated. Measurement is important to the geneticist and to the physician who is concerned with family guidance in cases where a child exhibits a deficiency state. The parents are concerned with the likelihood of the appearance of the traits in their offspring. Perhaps if quantitative methods of measuring these traits were available, recognition of the carrier state might be possible.

Hemophilia-like syndrome is a term used nine years ago to characterize circulating anti-coagulant. Popularly it is used also to refer to P. T. C. and P. T. A. deficiencies. Circulating anti-coagulants may be antibodies, probably secondary to the transfused A. H. G., P. T. C., or P. T. A. factors. Occasionally they develop de novo in the previously normal individual.

Pseudo-hemophilia B is a term coined by Singer in 1953 to characterize a prolonged bleeding time in the presence of an A. H. G. deficiency. Vascular hemophilia has also been called "pseudo-hemophilia", and Quick has described a "pseudo-hemophilia" caused by a decrease in platelet factor. All "pseudo-hemophilias" are characterized by an abnormal bleeding time. The following are diseases in this category:

1) pure vascular disease, which is hereditary, of equal incidence in males and females, is an abnormality of vessel wall contraction; the patients may bleed anywhere and may present in females as menorrhagia.

2) Von Willebrand's disease, in which a substance is lacking in the patient's platelets for normal clotting.

3) Glanzmann's disease, or thrombasthenia, in which the spreading capacity of the platelets is altered.

4) Thrombopathia, in which a clot retraction abnormality is the only defect.

5) Pseudo-hemophilia B, which has been described above.

Another deficiency state called para-hemophilia is characterized by factor V deficiency.

May I conclude by re-emphasizing that semantics is a major difficulty in the understanding of coagulation; the confusing nomenclature will probably be resolved only when the substances involved, which are present in such minute amounts, are isolated and purified.

Dr. John Frenster, Resident in Medicine: Much has been said today concerning deficiencies in coagulation. However, clinically the greatest problem is with the diseases of hyper-coagulability. For example, it has been suggested that there is a relationship between increased peripheral coagulation and fatty meals. A secondary problem is the individual's ability to lyse clots, and medications that may promote lysis. Would you care to comment on this aspect of the problem?

Dr. Josephson: The biggest stumbling block in this field has been the difficulty in measuring hyper-coagulability. Oschner in New Orleans felt that he had demonstrated hyper-coagulability in postoperative patients, and that this was due to high thrombin and low anti-thrombin levels. The difficulty of measuring these factors, however, casts doubt on his studies.

The literature relating to the effect of fats on coagulation also is confusing. Fats probably increase coagulability. Whether this is a vascular or systemic effect is unknown.

The problem of clot lysis is very important, and studies now in progress may indeed open a new therapeutic era.

Dr. Ronald Fox, Instructor in Medicine: What is usually taken as the end-point of the thromboplastin generation test?

Dr. Josephson: The only end-point for this, as for most other studies in this field, is a fibrin clot.

Dr. Adolph, Research Fellow in Medicine: I have the feeling that most of the time and effort in this field is being spent on the rare deficiency diseases, when most of the deaths relating to coagulation defects are due to thrombosis. Do you have any explanation for this?

Dr. Josephson: The only way in which it has

been possible to detect the substances necessary to form a clot has been in the study of the few patients in which there is a deficiency of one or more of these factors.

Dr. George Saxton, Associate Professor of Preventive Medicine: Why couldn't the progress of a clot be studied on a scanning spectrophotometer looking for changes in the absorption bands? Perhaps this would lend additional information on the substances involved.

Dr. Josephson: I know that spectrophotometry has been attempted, but the clot occurs too rapidly for practical application.

Dr. Saxton: What about studying migration in electrical fields?

Dr. Josephson: These are all trace substances. To illustrate the difficulty in purification, we obtained 1 mg. of what was supposed to be anti-

hemophiliac globulin. Sixty per cent of this material was fibrinogen, 20 per cent was a cold insoluble globulin, and the remaining material which presumably contained A. H. G. still showed a wide antigenic spectrum.

Dr. Frenster: There have been recent reports on the study of intravenous clotting in intact animals. Might this not prove a more useful method than the study of clots in test tubes?

Dr. Josephson: Yes, this is probably a much better method. The clotting of blood in a test tube is certainly not the same as that which occurs in a blood vessel. For example, it has been shown that the glass fragment can be substituted for platelets in a test tube.

Dr. Adolph: Thank you, Dr. Josephson. I may not yet have a firm understanding of coagulation, but at least my confusion has been focused.

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The judicious use of medicines

Just as each new discovery in medicine increases our knowledge and opens up new avenues of approach, it simultaneously imposes new challenges.

The antimicrobial agents are no exception, in that their administration has resulted in certain undesirable consequences which constitute new and serious problems in the medical care of patients. One of the main causes for this situation is the use of the antimicrobials as therapeutic measures in conditions in which their effectiveness has not been demonstrated. For example, in the general practice of medicine, the majority

of febrile illnesses are due to infections of viral origin which are not amenable to therapy with these drugs. Furthermore, the incidence of secondary bacterial infection has been shown to be higher in patients suffering from viral infections of the respiratory tract who received antibiotics than in those who did not, with the complicating infections which arose being due to unusual types of bacteria or to drug-resistant strains of common pathogens. Thus, in order to employ these agents successfully, it is important to limit their use to the treatment of infections which are susceptible to their action. *Harrison F. Flippin, M.D. Cardinal Principles of Antimicrobial Therapy. Pennsylvania M.J. Dec. 1957.*

The General Practitioner and Syphilis

EVAN W. THOMAS, M.D., ALBANY, N. Y.

There are numerous reasons why many physicians have little interest in syphilis. For the past quarter of a century or more, syphilis has been predominately a public health responsibility. During this time the disease has been increasingly confined to the poorest sections of the population; treatment has been greatly simplified; and there has been a dramatic decline in cases since 1947. Within the past few years, however, the downward curve of reported syphilis has been leveling off, and in 1956 it began to rise. This is not surprising because the elimination of a disease like syphilis through treatment alone can scarcely be anticipated. There is nothing on the horizon now to suggest that syphilis will not continue to be a problem in the foreseeable future.

It probably is true that most physicians see few cases of syphilis in their office, but the infection is met with frequently in hospitals and clinics, and no physician should be ignorant of the fundamentals of its diagnosis and treatment. The control of syphilis is important chiefly because the late stage of the disease may produce severe physical handicaps and even death. The devastating effects of late syphilis have been greatly reduced by modern treatment, but they have not yet been eliminated. As a cause of death, among the infectious diseases, syphilis ranks next to tuberculosis; and as a cause of incapacitating invalidism it is surpassed only by tuberculosis.

This audience may be as surprised as I was to learn from a recent report by Malzberg, of the New York State Department of Mental Hygiene, that there are now more patients in New York State hospitals because of general

paresis than there were 30 years ago. Yet, the rate per 100,000 population of first admissions to New York State hospitals with a diagnosis of general paresis fell from 7.2 in 1926 to 0.8 in 1956. Malzberg explains his paradoxical finding by the fact that paretics now live for much longer periods in the hospitals than was true 30 years ago. I am told that the median period of hospitalization for paretics in New York State is now about eight years and in the past eight years, 2,128 patients with a diagnosis of general paresis have been admitted to New York State hospitals. For the country as a whole, some 2,500 paretics were hospitalized in 1954. This represents a cost to taxpayers of millions of dollars to say nothing of the human suffering involved.

Facts such as these are all the more disturbing now that we have a relatively simple treatment that can prevent serious late manifestations of the disease in almost all cases, provided treatment is given prior to the onset of late symptoms. The simplicity of modern treatment is a great boon to syphilis control, but I fear it tends to make us forget that, from the standpoint of scientific medicine, no other single infectious disease encompasses so many unsolved problems as syphilis. To the scientist interested in understanding immunologic phenomena, syphilis presents a fascinating challenge. Osler's epigram that to know syphilis is to know medicine might be rephrased, to know syphilis is to know how much we don't know about immunologic mechanisms, including those underlying that complex group of clinical phenomena labeled allergic. The unknowns in syphilis are of more than academic interest. Answers to the questions raised by this extraordinary disease would throw new light on many of the puzzles now confronting us in the production of humoral antibodies, the mechanisms underlying cellular

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immunity, and the sensitization of tissues to a specific antigen. The *T. pallidum* is capable of stimulating the formation of at least several humoral antibodies, but these demonstrable antibodies do not alone explain the increased resistance to infection that develops during a prolonged syphilis infection.

Our ignorance of the immunologic mechanisms in syphilis accounts largely for the disconcerting differences of opinion still current in the literature and teaching of syphilis. Old theories and beliefs die hard when we have nothing definite to put in their place. However, the introduction of rapid treatment has replaced some older beliefs with more definite knowledge. Not much more than a decade ago it was generally believed that reinfection following treatment of syphilis was exceedingly rare, if it occurred at all. We now know that reinfection following curative treatment of early syphilis can and does occur, but that it is probably uncommon following treatment of late cases. These facts have been verified by experiments in New York's Sing Sing Prison, where volunteers previously treated for early and late syphilis were inoculated with virulent *T. pallida*.

The increased resistance to reinfection noted in the late stage is only one of numerous differences between early and late stages. In fact, the two stages comprise almost two distinct diseases. The initial reaction of body tissues to the *T. pallidum* observed in primary and secondary lesions is different from the reaction in the late stage. Early lesions contain the *T. pallidum* in large numbers but the lesions, as a rule, are nondestructive and are always self-limited within days or at most months. Relapses of early, infectious lesions may occur during the uncured early stage, but when the infection has produced the immunologic status of the late stage, the infected individual usually has become permanently refractory to the development of early lesions. Thus, if reinfection occurs following cure of late syphilis, it is not associated with darkfield positive early lesions. Exceptions to this rule, as with most immunologic rules, have been noted, but are exceedingly rare. Reinfection or relapse following treatment of late syphilis is manifested chiefly by marked, sustained increases in serologic titers but in clinical practice, such increases must always be con-

firmed by repeated tests over several months unless there is evidence of clinical progression of the disease.

Following successful treatment of early syphilis, the serologic tests tend to become negative within one year, but in a large series of patients followed up when I was at Bellevue Hospital in New York City, some 20 per cent of patients treated for secondary syphilis were still seropositive in low titers more than one year after treatment. Re-treatment, in the absence of serologic relapse, had no effect in hastening seronegativity in these patients.

From our data at Bellevue Hospital as well as from reports in the world literature, it is probable that the great majority of untreated patients develop the immunologic status of late syphilis within two years after infection. Some may delay longer and others may enter the late immunologic status in much less time. In fact, many do so within one year. One of the differences between early and late stages is the prolonged persistence of positive serologic tests for syphilis following treatment of the late stage, and, in my experience, prolonged seropositivity following treatment is common in patients who have had untreated syphilis for only one year.

But, regardless of the duration of the early stage, treatment should never be continued for the sole purpose of obtaining negative serologic tests. The purpose of treating syphilis is to prevent late symptoms and to arrest the infection in those with symptoms. With respect to the latter, please note that I said, arrest the infection, not reverse the symptoms. Cure of symptoms is impossible when irreversible changes have occurred in important systems, and late syphilitic lesions, unlike early lesions, are chronic and destructive, always healing with scar tissue.

The demonstrable lesions of late syphilis are of two general kinds, (1) chronic diffuse inflammations or degenerations that start chiefly in the central nervous system or aorta early in the late stage or not at all, and (2) gummatous reactions that may appear at any time in the late stage. We know that syphilitics who have a normal spinal fluid examination from two to four years after infection will not subsequently develop neurosyphilis. The diagnosis of neurosyphilis can be made at any time by spinal fluid examination, but clinical signs and symptoms

of late neurosyphilis, with the possible exception of pupillary changes, rarely are apparent before eight to 20 years after infection. Unfortunately, for cardiovascular syphilis we have no tests similar to the spinal fluid tests in neurosyphilis. Microscopic evidence of aortitis has been found at autopsy in patients who have had syphilis for only a few years, but the diagnosis of cardiovascular syphilis either by clinical signs and symptoms or by X-ray seldom is made in less than 10 years after infection and oftentimes much longer.

Gummatous reactions, as defined here, are an explosive reaction of sensitized tissues to the *T. pallidum* that may occur at any time during the late stage, even 30 or 40 years after infection. They are now observed much less frequently than in previous years. However, in the Sing Sing Prison experiment, two of the volunteers previously well treated for late syphilis [the last treatment having been received several years prior to the experiment] developed typical dark-field negative gummas at the site of inoculation with virulent organisms. Thus, the particular type of tissue sensitivity demonstrated by gummas apparently lasts indefinitely.

One of the striking features of all late lesions, with the exception of the meningoencephalitis causing general paresis, is the paucity of demonstrable *T. pallida* that can be found in the lesions. By what mechanism the body keeps demonstrable organisms in such small numbers without eliminating the infection is unknown. Nor do we have an explanation of why the *T. pallidum* multiplies freely in demonstrable forms in general paresis, producing a diffuse granulomatous inflammation within the cerebral cortex, while in tabes dorsalis we find degenerative changes in the posterior columns of the spinal cord and no demonstrable *Treponema*. Numerous other puzzling questions about syphilis might be stressed, but the problem of interpreting serologic tests for syphilis probably is of greatest interest to practicing physicians.

The serologic tests now in common use are made with lipid antigens obtained from beef hearts. They demonstrate a presumed antibody known as reagin. As is well known, this antibody is not absolutely specific for syphilis. In my judgment, the unreliability of these tests

has been exaggerated in recent years, but biologic false positive reactions are found frequently enough to present a real problem. Proof of their occurrence is established by the introduction of highly specific tests for syphilis of which the treponemal immobilizing antibody (TPI) test was the first to be used, and which still is regarded as the most reliable. The TPI test requires motile *T. pallida*, which must be obtained from the testes of a rabbit. The test is both time consuming and costly. Therefore, it is available for only a limited number of cases where the diagnosis of syphilis is in doubt.

Data obtained from various sources show that from 40 to 50 per cent of patients with positive tests for reagin and negative histories for syphilis have had negative TPI tests. This high percentage of biologic false positive reactions with tests now in common use is due to the selection of patients, all of whom gave histories questioning the possibility of syphilis. One of the important bits of information obtained by the reported data on the TPI test is that even so-called experts in syphilis have only about a 50-50 chance of making a correct diagnosis of the presence or absence of syphilis in a patient who denies infection but who has positive tests for reagin. Thus, in the absence of a TPI or other specific test, the physician might just as well toss a coin in deciding whether or not a patient with positive tests for reagin and a negative history has syphilis. In my experience with TPI tests on 100 untreated patients in the low income group who had positive tests for reagin in low titers, only 11 per cent had negative TPI tests. This percentage is too high for comfort. But, in the circumstances, if a patient has persistently positive reagin tests for several months and denies the possibility of syphilis, I prefer to treat for possible syphilis rather than to guess that the patient has a biologic false positive test. It is only fair to the patient in such cases to explain that the diagnosis is uncertain, but that treatment is now simple and preferable to living in doubt as to whether or not syphilis is present. This is unsatisfactory to both patient and physician but seems unavoidable unless specific tests are available. Efforts should be made to get a specific test in doubtful cases if that is possible.

Among patients followed up after treatment of late syphilis at Bellevue Hospital, a few with

known syphilis had persistently high titers of their standard serologic tests. Re-treatment failed to have any effect on the titers and over years of follow-up, at times the titers rose to significantly higher levels only to fall weeks or several months later to lower levels. The marked fluctuations in titers in these cases were due probably to causes other than syphilis—in other words, they were biologically false positive increases. I mention these cases because re-treatment for syphilis can be of no benefit in patients who are subject to increased reagin because of other causes than syphilis. Therefore, this possibility must be kept in mind when patients are found to have marked fluctuations in persistently high titers of standard serologic tests. In such cases, it would be of great help to have more specific tests than those now in common use.

But there is no prospect that the TPI test will become available in the future for more than a relatively few carefully selected cases. Fortunately, however, recent information suggests that a highly specific antigen for syphilis can be obtained from the Reiter strain of *Treponema*, which was originally obtained from spinal fluid and grown on culture media. It proved to be avirulent after culture and early attempts to obtain a specific antigen for syphilis from the cultured organisms were unsuccessful. Recently, however, a protein antigen from Reiter organisms has been made which can be used in either complement fixation or flocculation tests. These tests in the hands of some serologists have checked remarkably well with TPI tests. If this work is confirmed and the Reiter strain antigen holds up after extensive trials, it will replace the present lipid antigens for routine use.

As previously mentioned, the *T. pallidum* appears to give rise to several different humoral antibodies that are more specific for syphilis than is reagin. But, surprisingly, none of the specific humoral antibodies seems to be highly protective. Patients with general paresis have been found to have very high TPI test titers. In the Sing Sing Prison experiment the patient who had the highest TPI titer at the time of inoculation developed a dark field positive chancre at the site of inoculation, but this may

have been an exceptional case. It seems probable that humoral antibodies in syphilis play some role in the increased resistance to infection that is known to occur in many patients, but it appears that we must look to something in the nature of cellular immunity, if we are to explain this acquired resistance. Progress in our understanding of syphilis has been slow, but it is still underway and further advances can be expected, especially from serologists, and other laboratory workers.

From a practical standpoint, the greatest advance in syphilis has been its therapy. The *T. pallidum* is extraordinarily sensitive to penicillin. As little as 2,400,000 units of benzathine penicillin G in a single treatment has proved highly successful in the treatment of primary and secondary syphilis, and there is little reason to believe that higher dosages are necessary for early or late latent syphilis. Whether or not benzathine penicillin provides sufficiently high blood concentrations of penicillin for symptomatic late cases is open to question, but there are abundant data to show that, with few exceptions, from 6 to 9 million units of procaine penicillin in oil and aluminum monostearate have arrested active neurosyphilis. In penicillin sensitive cases, other antibiotics than penicillin can be used. Erythromycin® or Magnamycin® seems to be the most effective. Either can be given orally in divided doses of 2 to 3 gm. daily for 10 to 15 days and Erythromycin can be given intramuscularly in doses of 50 gm. twice a day or in a single injection of 100 gm. daily. Data on the use of Erythromycin and Magnamycin for syphilis are scant, but apparently these antibiotics are more effective than the tetracyclines. I lack the time to discuss the details of therapy, but they can be obtained from the literature or from health departments.

The point I wish to make here is that we need more than good treatment in the management of syphilis. Before the disease is treated, need for treatment must be determined. The diagnosis is missed in some cases because blood is not taken for serologic tests. In cases where positive tests for syphilis have been obtained, a good history is essential. This requires knowledge of previous possible genital sores or rashes, previous serologic tests, and previous treatment

in the patient and family, especially the spouse and parents.

In questioning poorly educated patients, perseverance and ingenuity are necessary. The word syphilis should be avoided. One must ask about genital sores, rashes, and previous needle treatments; and distinguish between needles used to withdraw blood and to give "hip shots." At best, many histories may be inaccurate but a surprising amount of useful information can be obtained, if the physician adapts himself to the patient. As a consultant in syphilis, I have found that failure to elicit histories that are available when the patient is properly questioned, accounts for much of the indecision and error in determining the need for treatment.

If syphilis is to be controlled, all cases must be reported. Outside of large cities, public clinics for syphilis are no longer economically justifiable and responsibility for diagnosis and treatment falls increasingly on physicians in their office practice. Many states provide fees to physicians for diagnosing and treating syphilis when the patient is unable or unwilling to pay. But many patients are willing to pay fees and these cases are not always reported. If we are to know the extent of our problem, all cases should be reported, if not by name, at least by initials with the age, sex, and marital status of the patient included.

In cases of early, infectious syphilis, every patient should be interviewed for contacts and the contacts must be brought to examination. This is primarily the responsibility of public health, but it cannot be met without the co-operation of private physicians. The value of contact tracing has been proved for years. In upstate New York in 1956, 21 per cent of all reported primary and secondary syphilis was the direct result of interviewing patients for contacts. This could not have been achieved apart from the co-operation of private physicians.

The increased participation of some private physicians in syphilis control is a fine thing, but I am much concerned over the indifference to syphilis of medicine in general. It seems to me that syphilis is accepted by medicine as, at best, a stepchild that is consciously or unconsciously neglected. It is not unusual to find pa-

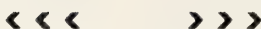
tients with secondary syphilis who attended hospital clinics or who were actually in hospital wards for as long as two weeks before the correct diagnosis was made. It also frequently happens that patients hospitalized for some illness other than syphilis are discharged without routine serologic test for syphilis recorded on the chart by a nurse or clerk. Conversely, if no diagnosis of symptoms can be made and a patient is found to have a positive test for syphilis, further search for the cause of symptoms is abandoned and the patient is treated for syphilis, regardless of previous therapy. I have known patients to be treated for syphilis repeatedly in a vain effort to allay symptoms that were eventually found to be due to some other cause. Other patients are treated repeatedly for syphilis in the hope of reversing symptoms caused by irreversible changes in the cardiovascular or central nervous systems, and some patients are treated merely because they still have positive serologic tests. Ignorance of syphilis does not imply poor knowledge of medicine in the minds of many of our recent graduates from medical schools. I have known interns who were well informed about relatively rare diseases, such as retrolental fibroplasia, histoplasmosis, and even some tropical diseases; yet they were unashamed to say that they know almost nothing about syphilis. Even physicians going into public health today have had little or no instruction in syphilis.

I don't know how many medical schools now make any effort to teach the fundamentals of the diagnosis and treatment of syphilis. I do know that what is taught in the various medical schools varies greatly and there is no uniformity in the contents of the instruction. Granted that syphilis cases suitable for teaching purposes are now unavailable in most medical schools and that clinical material is superior to didactic lectures in medical instruction, lectures are better than nothing. Elementary facts about syphilis could be taught in two or three carefully prepared lectures and there should be some uniformity in what is taught in the various schools. It is not enough for cardiologists to teach about cardiovascular syphilis and neurologists about neurosyphilis. This means very little when students have no basic knowledge of the disease as a whole. No physician is now likely to special-

ize in venereal diseases and I would not suggest that anyone should, but syphilis still has to be diagnosed and treated. The refinements of diagnosis are no longer as important as in the days of prolonged metal therapy, but the basic information obtained by well controlled studies since the advent of penicillin should be known to all physicians.

In my opinion, organized medicine should in-

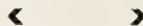
sist that syphilis receive more recognition in our medical schools. Perhaps this matter could be brought to the attention of the deans of the schools at their annual meeting. I am not suggesting that undue time be devoted to syphilis, but that elementary facts be taught and that some order be brought into the present haphazard and chaotic instruction.



Only three are left

The two-year medical school program has existed as a neglected child for several decades, but it can fill a large and important role in the immediate future. There are only a few remaining areas where the development of new four-year schools is possible. On the other hand, there are a number of existing four-year schools which could handle more students in the last two years than in the first two. Herein lies the future of the two-year medical school. The theory should have a thorough performance run. If successful, it could prove that the need is for more, not less, two-year schools in close association with colleges of liberal arts so located as to provide the clinical necessities of the first two years. The present problems in the medical field and the factors

that have given rise to them are new. The search for a solution will require a new rather than an old and traditional look. Guest Editorial. *John P. Bowler, M.D. The Two-year Medical School — Its Role in the Doctor Production Problem. J. Maine M.A. Nov. 1957.*



I have seen boys on my baseball team go into slumps and never come out of them, and I have seen others snap right out and come back better than ever. I guess more players lick themselves than are ever licked by an opposing team. The first thing any man has to know is how to handle himself. Training counts. You can't win any game unless you are ready to win. — Connie Mack

Recruitment in Allied Medical Careers

W. C. BORNEMEIER M.D., CHICAGO

This changing world, with higher pay and improved working conditions in industry, trades, offices, fishing, forestry, and farming has created a gradually lessening desire to enter the field of medicine and allied medical careers. In some areas, a lad can work in a shop in the forenoon and go to high school in the afternoon, and still get a certificate of graduation in four years. Consequently, he is not encouraged to enter fields like medicine, dentistry, nursing, or bacteriology. High school students are kept alert to careers in industry by a well planned program that may even provide scholarships for people with the desired aptitudes.

Examining careers in health fields we find that only the nursing profession has been promoted in the recruitment field. The stimulus for this probably originated from pressure in the communities for nurses to take over the jobs filled by volunteers during World War II. The nursing profession and medical profession co-operated to spearhead the stimulus to get more girls to enter the nursing profession.

Some years ago, nursing organizations, then active in encouraging girls to enter nursing, directed efforts to raising the standards of the profession. This might be a very laudable added endeavor, but in many areas the total effort was placed on encouraging longer periods of training and the obtaining of additional degrees.

Advanced degrees, of course, are good for the group that expects to teach, but for those who give nursing care and supervise this care, the schools of nursing as we have known them across the country have provided excellent training. However, the trend toward longer courses discouraged rather than encouraged girls to enter the field. As a result, more schools of nursing were closed than were opened. The problem, instead of being solved, became more acute.

Within the medical profession, it was the Woman's Auxiliary that eventually took over the project of pointing up careers in nursing. This was done by sponsoring "Future Nurses Clubs" in high schools, by providing information, field trips, and even scholarships for these future girls in white.

Such a program was a natural development. The wives of many physicians are nurses, and they realize that the nurse and physician must work together to bring recovery and repair where disease or accident has caused discomfort and despair.

The Woman's Auxiliary has gradually realized that other careers besides nursing need to be promoted. Competition in the recruitment field is making it necessary to encourage young people to become laboratory technicians and scientists, dietitians, medical stenographers, and artists, as well as physicians, dentists, veterinarians, sanitarians, physiologists, and bacteriologists. There is no more capable organization than the Woman's Auxiliary to launch this great movement in Allied Medical Careers Recruitment. In many areas the endeavor is already on its way. In others, the surface hasn't been scratched.

Other organizations besides physicians and their wives also have realized the need for health careers recruitment. The Woman's Auxiliary will soon find that many allied and related professions will want to help in this endeavor. Techniques for accepting this help and giving due credit for it will to be worked out. Federal and state groups known as Health Councils are becoming active in the field. The National Health Council recently (September 1957) appointed a committee to promote recruitment in health. The State Health Council has a very active and excellent committee. The Councils are anxious to help wherever and whenever they

Chairman — Advisory Committee to the Woman's Auxiliary.

can, but it would seem to be very impractical for them to supply a group of well informed, well organized leaders in the community to actually sponsor these clubs. The function of the Health Councils could be to supply material for display projects and awards and make available the help necessary when the local group is unable to provide the desired aid. It might be that the State Health Council could be of assistance where a local high school might not be enthusiastic about formation of an Allied Medical Careers Recruitment endeavor. Throughout this entire project, the Woman's Auxiliary would have an opportunity to demonstrate that they can co-operate with every interested profession and agency and still remain unencumbered by alliances that would embarrass their position as Auxiliary to the Medical Society.

Most high schools have a club program that could include a careers group. In schools without a club one might be organized outside of the school. Many physicians are members of Boards of Education, they could do added service to the community by helping to provide an area where young people would be given help in deciding their future.

All of the foregoing is background. The facts concerning the operation of the program in Illinois are: (1) The Woman's Auxiliary to the

Illinois State Medical Society has an Allied Medical Careers Recruitment program. (2) A brochure is available, giving instruction in detail covering the formation and operation of a club. (3) An award pin is available at a cost of \$1.00 each to be given by the club sponsor, the county auxiliary, to students who achieve the desired performance levels in each local club. (4) The Council of the Illinois State Medical Society, composed of elected representatives from all regions of the state, has endorsed this program and has authorized generous financial support to initiate the program. (5) Requests for additional information should be addressed to the Woman's Auxiliary to the Illinois State Medical Society, 185 North Wabash, Chicago 1, Illinois. Mrs. Nicholas Chester of Cook County is the president, Mrs. Fred Endres of Peoria County is the president-elect. Either can give information on procedure.

This program could be one of the greatest forces for good public relations ever undertaken by the physicians of Illinois. Besides helping to prepare young people for all of the jobs open in the health field, it would eventually alert every citizen of Illinois to the fact that physicians and their wives are intensely interested, with no thought of remuneration, in the health and welfare of the community.

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Is Trespass Indicated in a Life Threatening Surgical Emergency?

FREDERICK STENN, M.D., CHICAGO

Trespass is a legal term applied to the performance of a surgical procedure done contrary to law without consent of the patient or of nearest relative. In an instance of a life threatening surgical emergency—such as a ruptured viscus or eroded artery, where the patient refuses surgical intervention and where death as a result of failure to perform surgery is inevitable—the courts may be obliged to re-interpret the law. Most doctors at some time in their practice have encountered cases of this type which have caused them no end of remorse and frustration. The patient herein described died unnecessarily.

Paul H. A Lithuanian immigrant, aged 68, was admitted to Englewood Hospital for study on June 10, 1957 with a history of loss of 40 pounds weight in one year, increasing weakness for one year, continuous epigastric pain for six weeks, and vomiting occurring one and a half hours after each meal. He had had a hemorrhoidectomy six weeks previously. He had been employed for years as a porter for a construction company from which he retired three years ago. His wife died six years before and he lived contentedly with a couple in a flat in the Stock Yards area. His insurance policy amounted to \$800, but he had a sizable bank account. His nearest of kin was an unfriendly, fractious sister. A nephew was entrusted to conduct his business affairs.

His temperature was 98°, pulse 80, regular weight 155 pounds. Respiration 20; blood pressure 140/80; pupils small, reacting poorly to light. He had a bad odor to his breath due to carious, eroded and tobacco-stained teeth, the tongue was coated with a yellow white fur, the lungs hyper-resonant, the heart tones soft. A mass in the liver was palpable, 4 cm. below the costal

margin on both sides. The abdomen was soft. The anal rings had no muscular tone. The rectum was empty. He talked freely and coherently and was in no immediate distress.

The laboratory data were: hematocrit 26%, hb 54.7, 8.5 gms. WBC 6,650. The red cells showed poikilocytosis and anisocytosis. Urine negative for albumin and sugar. Electrocardiogram revealed sinus rhythm. Blood sugar 126. Blood urea nitrogen 28. Serum prothrombin 50%. X-rays of the lungs: emphysema. Scout film of the abdomen negative.

Course: On June 11, he was given one ounce of castor oil at 1 p.m., one quart of tap water enema at 7 p.m., and one quart tap water enema at 6 a.m. of June 12th. The protoscopic examination done in the knee chest position at 7 a.m. showed a normal rectum. He drank and ate well that day and was comfortable. At 10 a.m. on June 13, during the course of the barium enema, the roentgenologist, Dr. J. Kolis observed the barium to pass through a perforation in the sigmoid colon into the right side of the abdomen. At 10:30 a.m. the patient complained of pain and distress throughout the abdomen and went into a state of shock, the pulse at the wrist having disappeared. The abdomen was slightly distended and rigid, and bowel sounds were absent. The tentative diagnosis was acute peritonitis, perforation of sigmoid colon, and carcinoma of the stomach.

The patient's sister and nephew and the patient himself were all hurriedly informed of the necessity of immediate laparotomy. Despite repeated entreaty by Dr. Charles Hausman, the surgeon, and myself, the family including the patient refused surgical intervention stating that six years previously a relative under similar circumstances was operated on and died. We told the family that death was inevitable from

Northwestern University Medical School.

generalized peritonitis within 3 to 4 days. The sister was unmoved. I sought council from the legal department of the American Medical Association asking whether surgical intervention without authorization from the patient or the patient's family could be done in this grave situation. One lawyer told me I had a right on the basis of medical ethics to intercede despite the wishes of the family and the patient, but a second lawyer expressed the illegality of such a procedure.

At 3 p.m. the blood pressure was 80/60, no pulse at the wrist, the abdomen tense and silent, the patient looking blankly at the ceiling and saying nothing. In the next two days he was given 3 grams of Achromycin®, six liters of dextrose saline solution I. V., and 3,000 cc. blood. By June 15th the temperature rose to 103°, the pulse reappeared and disappeared, the blood pressure now at 94/60, the abdomen still tense and silent. That afternoon in his delirium he rolled out of bed with blood running in the vein of the right arm and saline solution in the other arm and fell upon the floor without doing himself injury. At 5:30 a.m., June 16, 1957 he died quietly. The reluctant sister gave at death what we most wished during life—permission for an abdominal incision.

The postmortem examination done by Dr. George T. Rich at 2 p. m., on June 16, 1957, disclosed a large irregular defect on the antimesenteric portion of the sigmoid colon. This area of the colon was black, soft, and friable. The colon was filled with scybalous fecal masses completely filling the lumen. The meso-colon in the area involved showed granulating connective tissue and organizing clots and fibrin masses in the arteries and veins. The peritoneal cavity showed a grey-white purulent exudate with injection of the intestines. Massive emboli occluded both pulmonary arteries. The lungs revealed advanced edema, congestion, and infarction. The adrenals showed atrophy; the liver, hepatitis; the heart, hypertrophy; the gall bladder, stones; and the kidneys, advanced arteriolar nephrosclerosis.

The courts vary in their opinion on what constitutes a trespass. The following selections from the literature reveal present day thinking:

J. Garrison stated "No amount of professional skill can justify the substitution of the will of

the surgeon for that of his patient." (Bennon V. Parsonnet (1912) N. J. L. R. 20 at 26).

In Yule Vs. Parmley and Parmley (1945) S. G. R. 635, the court announced: "The conclusion appears unavoidable that both of the parties hereto, particularly in the operating room, failed to recognize the right of a patient when consulting a professional man in the practice of his profession to have an examination, diagnosis, advice, and consultation and that thereafter it is for the patient to determine what if any operation or treatment shall be proceeded with."

T. L. Fisher wrote: "A person's person is his own: a doctor may do to a person only what that person wants done. To do more is to commit trespass." Asked his opinion regarding this case Fisher answered in a personal communication: (June 28, 1957) "The laws here (Canada) and the laws in the United States differ enough that I cannot answer your question for you. Here we act on the assumption that nothing may be done to a patient without that patient's permission or the permission of the responsible next of kin except in emergency situations where such permission cannot be obtained or where the delay necessary to obtain it might result in harm to the patient."

Woodward said: "When an immediate operation is imperative and when the patient's mental state—because of his ordinary mental competence or because of acute injury or disease—is such that he cannot rationally consent to a proposed operation and when such delay as would be necessarily incident to obtaining the consent of the parent or guardian involves serious risk to the patient, an operation may be performed on the basis of the legal theory of implied consent. The law implied in any such case that the patient if competent would consent to whatever may be within his own interests. When a surgeon operates under such circumstances however, he should be prepared to show if the issue is raised in the course of litigation; 1) that an immediate operation was necessary; 2) that a lawful express consent could not be obtained from the patient or from any person authorized to act for him, without endangering the health or life of the patient, and, 3) that the operation performed was only such as was necessary for the patient's welfare."

A significant case however, came before the Supreme Court of Iowa on June 20, 1931., (Jackovach, Vs. Yocum (Iowa) 237 N.W. 444.) This case proved that consent may not be essential in an emergency. On March 21, 1929, the plaintiff, Albert Jackovach, brought suit in the district Court of Lucas County, Iowa, asking \$15,000 damages.

On March 10, 1929, Jackovach, aged 17, living in the mining town of Williamson, Lucas County, Iowa, boarded a freight train at Williamson and rode 8 to 10 miles to Chariton, in company with another young man of the same age. Both boys jumped from the train as it sped at 15 to 35 miles per hour through Chariton. Jackovach was dragged and rolled some 50 to 80 feet and was given immediate care by Dr. Yocum, who found the boy to have a compound comminuted fracture of the elbow joint with 2 to 3 inch-wide profusely bleeding laceration of the scalp. Under anesthesia, Yocum sutured the scalp and after consultation with other doctors, amputated the fractured arm. The plaintiff contended that the amputation was done without express consent of the plaintiff or his parents. Neither the father nor the mother of the patient could be located for consent of the operation. The experts agreed that surgery was essential to save the patient's life.

The opinion of the court was: "While the courts are not entirely in harmony upon the question of consent to an operation, we think the better reasoning supports the proposition that, if a surgeon is confronted with an emergency which endangers the life and health of the patient, it is his duty to do that which the occasion demands within the usual and customary practice amongst physicians and surgeons in the same or similar localities without the consent of the patient. If the surgeon confronted by an emergency is not to be permitted after having fairly and carefully examined the situation to exercise his professional judgment in his honest endeavor to save human life, then the public at large must suffer. If the surgeon is not to be permitted to honestly use his best judgment upon the necessity of an operation, without waiting to get consent of either the patient or his parents, then is the skilled hand of the expert stayed by an unreasonable rule, often to the detriment of the patient and humanity at large."

A similar interpretation of the law was given in the following instances.

Pratt VS Davis (224 Ill. 309 7 L. R. A. (N. S.) 609, 8 ANN Cas 197, 79 NE 565) "In such an event may (the surgeon) lawfully, and it is his duty to perform such operation as good surgery demands without such consent."

DuBois VS Decker (130 N. Y. 325, 29 N.E. 313, 14 L. R. A. 429, 27 Am St. Rep. 529) "Physicians in the nature of things are sought for and must act in emergencies and, if a surgeon waits too long before undertaking a necessary amputation he must be held to have known the consequences of such delay, and may be well liable for such damage."

Sneary VS McCarthy, 180 Iowa, 81 161 N.W. 108, 110) "As a general rule it may be safely affirmed that in matters requiring special skill and training it is not permissible for laymen as nonexperts to set up any artificial standards as to methods of treatment. This is especially true in surgery; for in that field neither courts nor juries are presumed to know more regarding methods of treatment than ordinary laymen and that is practically nothing."

In 1953 a child was born with erythroblastosis fetalis with a severe anemia which the three testifying physicians stated would lead to death or permanent impairment unless blood transfusions were given immediately. The parents, Jehovah's Witnesses, refused on religious grounds. The parents who refused blood transfusion were found guilty of neglect and of failure to carry out their duties as parents. The Supreme Court of Illinois permitted the blood transfusion.

Delahunt VS Finton (Michigan) 221 N.W. 168: A physician passed a filiform bougie into the urinary bladder, where the instrument became looped thereby necessitating an operation without the patient's consent. The doctor saw the entangled bougie as a source of danger and so operated. The judgment was given for the physician. The plaintiff appealing to the Supreme Court of Michigan was told that a surgeon may lawfully perform an operation in case of emergency without consent of the patient.

Louis J. Regan, stated: "In an emergency which demands immediate action for the preservation of life or health of a patient and in which it is not practical to obtain his consent or the

consent of anyone authorized to speak for him it is the duty of the attending physician to perform without consent such operation as good surgical practice demands."

In the circumstances presented by our case the surgeon is most loathe to do what he knows is best for the patient when the law strictly forbids intervention without consent. But the soundness of the law must be questioned. What special knowledge does the patient or his relative have of the grave problem before him? How can superstitious feelings of relatives compare in importance to the facts known by the doctor? What right can there be to protect the interests of a family that is concerned with collecting the patient's insurance or by hurrying the day when the bank account will fall into the hands of the greedy relatives? If a man is lying in the street with a severed artery and bleeding to death and his by-standing relatives urge the physician to let him alone, shall the physician heed this request? The patient, the patient's family and the physician too are all guilty of murder through neglect. The problem is the same whether it be an apparent, external hemorrhage or a ruptured viscus hidden from the eye by a layer of skin, muscles, and peritoneum.

Society does not permit suicide in the positive sense by use of agents and means that destroy life. Society, too, must not permit suicide in the negative sense through neglect of the patient to consent to have done what is best for him in an emergency, and society must not condone homicide achieved through failure of the nearest of kin to co-operate with the physician.

Who determines in an emergency state the conduct of the physician? The patient? The patient's family? By no means! The physician himself is duty bound to promote and to prolong the patient's life. All other entanglements, financial, legal, domestic must be pushed to the background.

The law respecting surgical intervention in emergency life threatening situations, where authorization is refused, must be re-written. A test case must be evoked; and the law re-written with a clarity that leaves no room for dispute.

My immediate suggestion is the creation by the American Medical Association of a court of physicians whose opinion can be sought with the least delay, and whose opinion will be respected by the law.

6400 S. Kedzie Ave.

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The first cesarean

In the first century, Plutarch, the great Greek biographer and moralist, said, "So very difficult a matter it is to trace and find out the truth of anything by history." This statement by the ancient writer is especially pertinent to any attempt to determine to which American physician belongs the credit of performing the first cesarean section. Of ten authorities consulted, six accord the honor to Jesse Bennett of Edom, Virginia, while four support John Lambert

Richmond, of Newton, Ohio. From various sources we learn that Bennett, a country practitioner, was forced to operate upon his own wife. The consultant had tried forceps and had failed. Of the two choices, craniotomy or section, Mrs. Bennett chose the latter. The successful operation was performed on January 14, 1794; but it was not recorded for many years. *John E. Savage, M.D. An Account of the Early History of Cesarean Section in the United States. J. Louisiana M. Soc. July, 1957.*

Clinical Aspects of Exfoliative Cytology

HAROLD A. KAMINETZKY, M.D., CHICAGO

THE cytologic method has received considerable approval as a tool for early detection of cervical cancer. Its usefulness has been demonstrated in the field of mass population screening and is especially evident in the asymptomatic patient whose genitalia are visually and palpably normal. However, opinions concerning its value in routine practice vary from strong approval to tolerant indifference.

Our cytology program was begun in September 1949 under the direction of the Department of Pathology and we have been provided with unlimited access to the method. Each new patient, regardless of complaint, is studied and additional smears are taken as frequently as desired. Two smears are prepared, one from the vaginal pool and the other from cervical mucus. We use a cotton applicator to obtain the material. We have not used the endometrial aspiration technique and are not hunting for endometrial cancer primarily. On the other hand, on a number of occasions, such lesions have been discovered by the two smears mentioned above. Our clinic population is similar to any group of gynecologic patients, except that we seldom see patients whose primary complaint is cancerophobia.

Between September 1949 and June 1956 — the period covered by this study — 4,737 patients were processed and of this number, 187 were found to have cervical cancer. Among patients with cervical and endometrial cancer, 90 per cent were suspected on clinical grounds and 90 per cent were detected by cytologic study. However, some of the cases suspected clinically

were missed cytologically and vice versa. An analysis of the respective failures is useful in defining the value of the smear technique.

There were 33 patients, unsuspected on clinical grounds, who ultimately proved to have cancer after reports of suspicious or positive smears led to comprehensive search. Conversely in 36 patients with carcinoma, subsequently proved by biopsy, no anaplastic cells were obtained by smear technique. Of these 36 patients, 20 had carcinoma of the corporeal endometrium and 16 carcinoma of the cervix. Twelve of the latter were invasive and they represent 6 per cent of all carcinomas of the cervix in this series. Admittedly, our cytologic methods are not designed to discover endometrial cancer. On the other hand, they were invoked in the present series of patients for the express purpose of indicating the presence of carcinoma of the cervix.

A review of the records of the 33 patients clinically unsuspected of harboring uterine cancer, in whom the smear led to further search and proof, showed that 26 presented clues in the history or physical findings. Nevertheless, the examiner failed to suspect the possibility of malignant disease. The first slide (see Table 1)

Table 1
SYMPTOMS
Carcinoma of Cervix
(unsuspected clinically)

	Patients number
Cervicitis	16
Bleeding, contact	7
Bleeding, menstrual	7
Bleeding, intermenstrual	6
Enlarged cervix (no other disease)	3
Discharge	3

From the Department of Obstetrics and Gynecology of the College of Medicine of the University of Illinois.

Presented before the Section on Obstetrics & Gynecology, 117th Annual Meeting, Illinois State Medical Society, Chicago, May 21, 1957.

shows the variety and frequency of symptoms and findings in this group.

Most of these patients had two or more symptoms and no patient presented profuse discharge as a sole suggestive symptom. It is noted that 16 of these patients had findings suggesting cervicitis and by far the most frequent sign was so-called cervical erosion. These women were for the most part examined by senior staff members. Further inquiry into the lack of clinical suspicion led to an analysis of these patients according to age as shown in the next slide (see Table 2).

Table 2
AGE
Carcinoma of Cervix
(unsuspected clinically)

	Patients number
25 - 29	4
30 - 34	7
35 - 39	7
40 - 45	3
46, plus	5

We see that 17 of 25 patients were under age 40. Three of the patients in the 46 plus group had noncervical cancer. It seems, therefore, that the greatest barrier to clinical suspicion in this group of patients was their relative youth. These findings also suggest that the appearance of cervical carcinoma, both invasive and in situ, can be confused with that of relatively benign disease especially if the patient is young enough. It is disturbing to imagine the outlook in these women if they had fallen in the group of cytological failures. We wonder whether the examiner would have invoked four quadrant biopsy in these patients as an initial procedure had cytologic smear been unavailable.

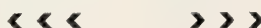
Four additional women of the 33 found through use of the smear were missed by biopsy of a visible lesion. Only after the smear was found to contain anaplastic cells was definitive study instituted. Since the carcinoma was missed by single biopsy of the most likely site,

it is obvious that it was elsewhere in the cervix. Four quadrant punch biopsies of the squamocolumnar area might have found the lesion when one did not. As it stands, there was a delay of over two weeks while cytologic findings were confirmed and treatment begun. This is a significant delay in patients with invasive cervical cancer.

The remaining three patients brought to light by the cytologic method were women whose histories and physical findings did not suggest the presence of carcinoma. The early institution of therapy in these patients could have been achieved only through the use of this method.

We may conclude from these data that the cytologic method has been of service in our clinic. However, it has failed us in 6 per cent of our patients. The smear should, therefore, never be invoked as the *sole* cancer screening agent for the frankly diseased uterus. It is inadequate in definitely establishing the presence or absence of malignancy. Four quadrant biopsy will permit direct sampling of the squamocolumnar junction and is the most practical office method. In addition, it is well established that smears may contain anaplastic appearing cells when there is no cancer. It is consequently mandatory that a malignant lesion be identified by tissue techniques before a decision regarding therapy is reached. Cone biopsy of the cervix and curettement of the endocervical canal will allow complete tissue survey of the cervix. Curettement of the corporeal endometrium completes the uterine analysis. Carcinomas of the fallopian tubes and ovaries may occasionally be reflected in the cervicovaginal cytology but only rarely will the responsible masses be overlooked on pelvic examination.

The cytologic method stands supreme as a screening technique for women without symptoms or findings. It has served to focus attention on preinvasive and, therefore, curable cervical cancer. It is a useful supplementary method for patients with apparent gynecologic disease. However, it can cause harm when used to replace standard gynecologic techniques.



Loss of Anterior Chamber Following Cataract Surgery

GEORGE J. WYMAN, M.D., PEORIA

ONE of the most common complications following cataract extraction is the failure of the anterior chamber to re-form or the loss of the re-formed chamber at some time during convalescence. This complication, although often dismissed as relatively unimportant, can be disastrous either through glaucoma secondarily induced or corneal changes caused by vitreous contact. In discussion from time to time with other men it has seemed to me that the complication is treated too lightly but after having seen several eyes lost I am not of that opinion.

In 1947 Hughes and Owen reported on a series of 2,086 cataract extractions. In 66, or slightly more than 3% of all cases, there was a flat chamber at some time. Of these, 21% were flat at the first dressing and in 49% the chamber was lost either during removal of cornea scleral sutures or the day following. They felt that there was direct evidence of filtration of aqueous through the incision in all but nine cases.

Their suggestion was that the sutures should not be removed before the 10th day and if the patient was unco-operative it was better to wait an additional week or two. Treatment of a flat chamber recommended by them varied from direct suture of a gaping wound to a pressure dressing in the milder cases. If the anterior chamber remained collapsed from seven to 10 days they injected air by means of an incision through the cornea with a Ziegler knife. This was done in five cases, all of which were successfully re-formed. In 23 cases with a flat anterior chamber for over seven days, secondary glaucoma ensued in 17.4% in contrast to an incidence of 4.3% in the remainder of the series, or over four times the usual incidence.

Dr. Kronfeld has made an intensive investigation of this complication and the study which

was published in 1954 has probably been read by most of you. In 94% of his series, which consisted of 749 cases, the anterior chamber was formed at the first dressing and remained so throughout. However, an additional 5% showed some shallowness at some time during the healing process so that he stated that 11% of the series had an absence or near absence of the chamber, which is considerably higher than the Hughes percentage. Hughes, however, did not count a shallowing of the anterior chamber. Kronfeld noted a traumatic incidence in 40% of the cases.

Of interest was his observation that a small fistula will in time decrease the capacity of the eye to manufacture aqueous. In 19 cases in which conservative treatment failed to re-form the chamber, 17 cases were re-formed eight to 10 days later when the patient returned for a followup visit. In the treatment of this condition a gaping wound was treated by repair. If it appeared to be due to suture, the offending suture was removed. The wound edges were cauterized in some cases with success. Use of eserine or DFP appeared to be of help but in only a little over 10%, a figure I would view with question. However, surgical restoration with air or combined with drainage of subchoroidal fluid was highly effective. In 32 cases when the chamber was absent for nine or more days, 17 cases or over 50% developed glaucoma and four more were borderline.

COMMENT

In this series of 216 cases, 16 cases had a flat chamber at some time. Two eyes were blind as a result of extensive vitreous adhesions to the cornea and corneal opacification. Both of these cases were cataract extractions done after previous filtering operations for glaucoma. One other case in this series was of similar type but with choroidal drainage and air bubble the eye

Presented before Section on Eye, Ear, Nose and Throat, 117th Annual Meeting, Illinois State Medical Society, Chicago, May 21, 1957.

was saved with useful vision. Only one case of glaucoma followed loss of anterior chamber in this series which is about 6% but the number of cases is too small to attach any percentage importance. However, in the Kronfeld series, where no anterior chamber was present for nine or more days, more than 50% developed glaucoma.

The question of trauma is interesting. Dr. Kronfeld got a history of traumatic incidence in 40%. I have only one case in which the chamber was lost due to trauma in each eye, done apparently six months apart. But 12 of the 16 cases lost their anterior chamber after the 10th day when they were discharged from the hospital and in all likelihood many of them had some traumatic incidence which they concealed.

In talking to other men about this complication I have heard it expressed that one can wait longer before doing anything, if the eye is relatively white. This is probably true, although it has been my observation that upon prompt restoration of the anterior chamber, an injected eye will immediately become less reddened. The use of Diamox® in my hands has been useless, despite reports to the contrary in the literature. Since a chamber will often re-form spontaneously in a day or two I think it is difficult to evaluate a drug. In the more prolonged cases Diamox was tried without success.

The treatment I have used, so-called conservative, is to bandage the eye closed and put the patient to bed or relatively quiet. If it is over

10 days postoperatively the sutures are removed immediately. If the edge of the wound appears to be not well coapted, 25% trichloroacetic acid is applied to the wound. If, after four or five days, there is no sign of re-forming, an incision is made into the inferior temporal scleral over the pars plana, diathermy is lightly applied, and the suprachoroidal space is drained following which a bubble of air is put into the anterior chamber with the A.C. puncture needle manufactured by Grieshaber. No iris prolapse or vitreous loss was encountered with this procedure but it can happen if air is put into the anterior chamber without softening up of the eye even in eyes operated weeks before.

Vitreous contact persisting for a long time is as detrimental to useful vision as any complication I know of and in the long continued cases the usual ending is a secondary dystrophy. Treatment of vitreous contact leaves a lot to be desired.

I should like to make a plea for early intervention in cases with no anterior chamber after cataract extraction. I believe that five or six days is the longest one should wait if the chamber remains flat before draining the choroid and introducing an air bubble. The procedure is not harmful and in no case has it caused any serious complication. Failure to do so may lead to loss of an eye. Sitting on one's hands has a limit and I cannot agree with one ophthalmologist who said "If the chamber is flat I send the patient home for two weeks so I won't worry about it."

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COOK COUNTY HOSPITAL CASE RECORDS



Cholelithiasis in the Teenager

PETER BEACONSFIELD M.D., AND HERMAN A. JACOBSON M.D., CHICAGO

A fair, fat, forty, flatulent, flabby and fecund female" is an all-encompassing description of the usual patient with gallstones and cholecystitis. While this generally holds true the malady occurs at a considerably younger age, and it becomes progressively more common with advancing years.

Statistics and experience show a high frequency of calculus formation within the gall bladder, variously estimated between 5 per cent and 20 per cent of the total populace. Gross¹, in reviewing the reports of 10,000 autopsies found an incidence of 8.4 per cent. Eliason and Stevens² suggested that 30 per cent of people over the age of 45 in the United States suffer from some form of biliary disease. While cholelithiasis and cholecystitis are uncommon in children and adolescents, some 500 cases have been reported in the literature.

The earliest reference to gallstones appears to have been made by a Greek physician named Alexander of Tralles living in the 5th century. He wrote of "dried up humors concreted like stones" which he thought might have some connection with "obstruction of the liver." A later observation of gallstones was made by Silvaticus in 1317; and Marcellus Donatus in his work "De Historia Medica Mirabili" (1586) reported having found stones in the ampulla and common duct. Cholelithiasis and biliary obstruc-

tion were first described by Fernel in 1554; but it was not until 1667 that an attempt to remove gallstones was made by Van der Wiel. This was done, however, without a cholecystectomy, a procedure first performed successfully by Kocher in 1878.

This article reports three patients with cholelithiasis and cholecystitis aged 14, 16 and 19 years. In view of the uncommon occurrence of this condition in persons under 20, it might be of interest to mention that all three cases were encountered by the authors within the short span of two weeks.

CASE 1. P.R., a 14 year old girl, was admitted to the hospital because of intermittent vomiting over a three week period. She gave a history of being perfectly well until that time when, after meals particularly heavy ones, she experienced flatulent dyspepsia with nausea and some vague upper abdominal pain. She was relieved of her discomfort by bringing up her gastric contents. The patient tolerated light meals well; and was asymptomatic if kept on milk and cereals.

Physical examination of this white, dark-haired, rather thin girl revealed no abnormalities. The abdomen was soft, and there was no guarding or tenderness, nor any palpable masses.

Hematological examination was normal, except for a sedimentation rate of 18 mm. Barium meal was negative, while the Graham-Cole test revealed three large stones in the gall bladder.

A cholecystectomy was performed. The gall

From the Department of Surgery, Cook County Hospital, and the Chicago Medical School.

bladder wall was found to be thickened and contained seven medium-sized soft brown-black stones.

CASE 2. L.C., a 16 year old, obese colored girl was transferred to the surgical ward with a chief complaint of epigastric and right upper quadrant pain of one month's duration, which began four months after the birth of her first child. The pain progressed in intensity up to the time of admission when she developed symptoms and signs of true gall bladder colic. The patient also vomited a number of times on that occasion. She gave a two year history of intolerance to fatty and fried foods, but gave no history of jaundice.

The hematological examination was normal; and the X-ray reported cholelithiasis with associated cholecystitis.

Physical examination on the surgical ward, which was some two weeks after the patient's admission to the hospital, still revealed some epigastric tenderness, more marked in the right upper quadrant; and she had positive Murphy and Naunyn signs.

A cholecystectomy was performed. The gall bladder wall revealed chronic inflammation, and the lumen contained a number of stones.

CASE 3. B. K., a 19 year old white female, was admitted to the hospital with a chief complaint of severe upper abdominal pain and vomiting. The pain had awakened her suddenly during the night, was intermittent but intense, primarily located in the right hypochondrium, and radiated to the back and upwards to the interscapular region. The patient vomited shortly after commencement of the pain, and at the time of admission required opiates to relieve her discomfort.

She gave a history of normal delivery of her first child six weeks prior to present admission. She had experienced a similar attack in the seventh month of pregnancy, but it had not been so severe. The patient denied any intolerance to food, jaundice or any other previous gastrointestinal difficulties.

Physical examination revealed a thin young woman in obvious distress. The pertinent physi-

cal findings were confined to the abdomen where there was tenderness in the epigastrium and right upper quadrant with considerable guarding. The Murphy sign was present, and Boas's was elicited posteriorly. The gall bladder was not palpable.

Laboratory findings revealed an increased sedimentation rate, and a white blood count of 11,000. There were no other hematologic abnormalities. The Graham-Cole test was normal.

As the patient was presenting a rather typical picture of acute cholelithiasis, gall bladder visualization was subsequently repeated and revealed stones.

The patient underwent a cholecystectomy. There were five small dark-brown stones in the gall bladder, one of which was lodged in the cystic duct.

All three patients made uneventful recoveries, and have been symptom-free since their surgery in the early fall of 1957.

The cases reported are either unusual variations of common conditions; or rare maladies with a classical description. The three patients described above belong in the former category because of their youth. While all three patients had cholelithiasis, each of the two who developed a typical gallstone colic were still in their postpartum period. One, in fact, had no symptoms at all prior to pregnancy.

It is difficult to consider pregnancy as an etiological factor in gallstone formation. Nevertheless, speculation on the reasons for the frequent occurrence of the first attack shortly after delivery, particularly in young mothers, may be entirely justifiable.

The advisability of cholecystectomy in the presence of asymptomatic gallstones has been a longstanding issue between physicians and surgeons. Yet as far back as 1667 Michael Entmuller expressed the view that "There is no medicine which can cure gallstones, and they should be removed even if not causing trouble."

REFERENCES

1. Gross, D.M.B., *J. Path. and Bact.* 32: 503-526 (July) 1929.
2. Eliason P. and Stevens J., *Surg., Gynec. & Obst.* 78: 98, 1944.

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Paradoxical Embolism

EDWIN F. HIRSCH, M.D., CHICAGO

Paradoxical embolism is the transport of a blood clot or other embolus by the circulating blood from the venous circulation into the arterial through a foramen in the auricular or ventricular portions of the cardiac septum. Paradoxical embolism is mentioned in almost every text on general pathology, and in the classroom, the medical student's grasp of embolism is challenged by instructors who call upon him to define this phenomenon as though it were a common occurrence. Medical students have been given this traditional question on paradoxical embolism by many generations of instructors (or professors) of pathology, but probably few of these elite have seen tissues of a necropsy with this form of embolism or have had more than a casual acquaintance with a published description. Young, Derbyshire and Cameron in 1948 (*Arch. Path.* 46: 43, 1948) recorded 41 published reports of paradoxical embolism.

A white woman, aged 40 years, received extensive third degree burns of the right arm and trunk at her home on December 12, 1955. She was brought to St. Luke's Hospital at once and the burned areas were treated with compression dressings and saline baths. On December 29, 1955 the burned surfaces were debrided. The patient continued to convalesce satisfactorily and on January 7, 1956 while skin grafts were being

applied she suddenly collapsed. The chest was opened immediately and the heart was massaged without success in efforts to revive cardiac functions.

The essential portions of the anatomical diagnosis are:

- Third degree burns of the right arm, right side of the trunk, buttocks, lateral aspect of the right thigh;
- Recent surgical donor graft wounds of the left thigh;
- Recent surgical left thoracotomy;
- Recent extensive pulmonary embolism;
- Multiple recent hemorrhagic infarcts of the lower lobes of the lungs;
- Atelectasis of the lungs;
- Paradoxical embolism of the interauricular septum of the heart — widely patent foramen ovale;
- Multiple small anemic and hemorrhagic infarcts of the kidneys and spleen;
- Recent blood clot embolism of the splenic artery, hepatic artery, and right internal iliac artery;
- Varicosities of the legs;
- Slight pitting edema of the legs, etc.

The body had healing third degree burns of the right arm (75%), the right side of the trunk, the right buttock, the lateral surface of the right thigh (15%), and knee. There were recent donor grafts in the burned surfaces; the recent left thoracotomy wound made for cardiac

From the Henry Baird Favill Laboratory of St. Luke's Hospital Chicago



Figure 1. Photograph of the paradoxical embolus (A) extending through and impacted in the patent foramen oval of the heart.



Figure 2. Photograph illustrating the recent hemorrhagic infarcts of the kidneys.

resuscitation; and bilateral varicosities and edema of the legs. The right main branch of the pulmonary artery had several molded gray-red blood clots (Figure 3A). The heart weighed 400 gms. The foramen ovale was widely patent and threaded through this opening was a large firm molded blood clot, 12 cm. long and 1 cm. in diameter. (Figure 1). Seven cm. of this embolus extended through the left auricle and a short distance into the left ventricle. The valves and muscle tissues of the heart had no significant changes. The lungs weighed 500 and 510 GM. The right lung was moderately expanded; the lower lobe had a large dark red in-



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Figure 3A. Photograph of molded blood clot emboli removed from the pulmonary artery.

B. Photograph of the embolic thrombosis of the splenic artery.

faret and an embolic thrombosis of the pulmonary artery branch to this portion. The left lung was collapsed and the main branch of the pulmonary artery was occluded by a molded blood clot continuous with extensions into the upper and lower lobe branches. The left lung had multiple small recent infarcts.

Facts supporting the conclusion that the

paradoxical embolus had been present before death and was not simply agonal were the multiple embolic arterial infarcts and embolic thromboses in other viscera. The kidneys (Figure 2) and the spleen had hemorrhagic infarcts; the splenic artery (Figure 3B), the right internal iliac, and the right branch of the hepatic artery with liver infarction were occluded by blood clot emboli.

COMMENT

Paradoxical embolism is mentioned frequently in general discussions of embolism, but is ob-

served rarely in necropsies. The factors necessary for the occurrence of paradoxical embolism are 1) venous thrombosis with embolism and 2) a patent auricular or ventricular foramen of the cardiac septum sufficient in size to permit passage of the embolus. Embolic obstruction of the pulmonary circulation is mentioned as an accessory factor. Venous blood flow because of the obstructed pulmonary circulation is diverted through the septal defect into the left auricle or ventricle and carries the embolus into the arterial circulation.

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No ill feelings

The other day chatting to a psoriatic old woodman who attends regularly for his "skin, doctor," I found that he came originally from the village where I was born, a hundred miles away. There he had been treated by my father for the same complaint over 45 years ago. He was very pleased at this discovery and seemed to bear no ill-will for two generations of unsuccessful doctoring. *In England Now. Lancet, Apr. 13, 1957.*

A one bed family

Shirley came from a large but poor family. As she had collapse of the lung with bronchiectasis she was advised to have postural drainage. This involved sleeping at night with the foot of her bed raised. This advice was readily accepted and it was only some months later that it transpired that the whole family had to sleep with their heads down as they only had one bed. There were no complaints. *In England Now. Lancet, Apr. 13, 1957.*

EDITORIALS



Maternal illnesses and mental retardation

Stott* believes that stress during pregnancy is responsible for congenital defects and mental retardation in infants. He questioned the mothers of 102 mentally retarded children and compared their pregnancy with those of 450 mothers of normal children. The first group showed 24 instances of maternal illnesses; 20 had developed toxemia; and the remaining number had a variety of diseases such as rheumatic fever, ulcer, or cardiac disease. Only 30 per cent of the 450 controls had been ill during pregnancy. There were 38 instances of harassment or emotional distress among the 102 mothers of backward children. The conflicts included matrimonial trouble, eviction threats, and quarrels with relatives.

The incidence of ill health among the infants shortly after birth was three times more prevalent among the abnormal group. These differences were significant to Stott. Experiments on pregnant animals have disclosed that the fetus can be affected early in gestation. When rats are placed in a rotary drum during the 8th to the 13th day of gestation, the progeny develop defects. If the drum is revolved too many times the outcome is resorption or stillbirth. Vitamin deficiencies during gestation produced malforma-

tions in ducks, turkeys, chickens, pigs, cows, mice, rats, and guinea pigs.

This may be a new approach to the etiology of mental retardation. More confirmation will be needed because evidence to the contrary is noted also in the medical literature. Surveys made on women who encounter illnesses, toxemias, and other stress situations during pregnancy demonstrate that the majority give birth to normal children.

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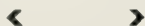
Pharmaceutical sampling

Samples cost the pharmaceutical industry \$50,000,000 per year. There is a question in their mind as to whether they are getting their money's worth. Many physicians like samples, even though they relegate some of them to the wastebasket. Pharmacists complain they lose money when physicians give them to patients, especially new and expensive items. Most physicians remember a product better when it is seen, and sometimes tasted and tried. Samples are used in therapeutic trials and often constitute the medicine the physician uses on himself, family, and nurses.

A survey by Medimetrics Institute as reported by FDC shows that physicians want more samples and in larger quantities. They are discarded by only one in five. Half of the physicians surveyed claim that they examine 50 per cent of the samples with some care, and the

*Stott, D. H.: Physical and Mental Handicaps Following a Disturbed Pregnancy, *Lancet* (May 18) 1957.

majority glance at virtually every sample received. Four out of five keep the samples on a special shelf or in a cabinet. Only one in seven keeps them in the desk drawer. Two in five go through their sample stocks every three months to dispose of unwanted supplies. Three out of five claim they give them away. Twenty per cent of these three gave them to pharmacists. The rest gave them to hospitals, missions, or charitable institutions.



Public relations committee meeting is well attended

The Public Relations Committee meeting of the Illinois State Medical Society in the Hotel Sherman, Chicago, February 2, was well attended.

The theme, "PR and Legislation at the Grass Roots," was introduced by Dr. Percy E. Hopkins of Chicago, chairman of the Committee on Medical Service and Public Relations, who presided. Dr. Hopkins emphasized the importance of individual action.

Dr. Lester S. Reavley of Sterling, president of the Society, pointed out that the medical profession was experiencing a creeping socialization and that if the trend continues it will not be long before the private practice of medicine will be a thing of the past.

Dr. Reavley urged individual and concerted action on the part of physicians in order to preserve a high standard of medical care for the American people.

Dr. Thomas H. Alphin, director of the AMA's Washington office, and evening speaker, covered the grass roots theme by citing the role of the individual in preserving the ideals of a free society.

"The ethical professions made up of men well-educated, trained in special skills, and cognizant of duty to all citizens are among the finest expression of the individual man of the democratic society," Dr. Alphin said. "Properly motivated by ethical ideals, they can and must lead the fight to preserve the republic."

MEDICINE'S PROBLEMS

He listed some of the problems of organized medicine on the political scene: (1) medical care of the indigent, the very young, the aged, and the retired; (2) medical care of military de-

pendents; (3) organized labor, sometimes led and often misled by overly ambitious leaders; (4) the institutionalized and others; (5) preservation of group freedoms, including professional rating by one's professional peers; (6) professional direction if not full professional control of ancillary services.

He pointed out that 33,569,000 people under existing laws are entitled to full or partial medical care. Passage of pending bills would increase the total to more than 60 million, or one out of every three.

Mr. Aubrey D. Gates, recently appointed to an AMA task force dealing with the Forand Social Security expansion bill, was an unscheduled speaker. Mr. Gates reported that the AMA was undertaking the mobilization of all of its resources in this connection. He said that indications were that Congressional committee action on the Forand Bill will not occur until after Easter. This will give the medical profession an opportunity to muster its forces.

Mr. Gates emphasized the importance of a teamwork approach on all legislative matters affecting the medical profession. This means unity of efforts at AMA, state and county levels.

ROLE OF WOMEN

The first section of the afternoon session was devoted to public relations problems. Dr. Walter C. Bornemeier of Chicago, chairman of the ISMS Advisory Committee to the Woman's Auxiliary, said the wives of physicians had been practicing good public relations long before emphasis was placed on the term. The auxiliary is working with the medical profession to improve community health conditions. Its sponsoring of medical and allied career clubs is a tremendous force for good public relations.

The wives have been particularly helpful in spreading information concerning good and bad legislation involving the health of the public. They have demonstrated that a well-informed group such as the auxiliary can be a potent force in public approval of the medical profession and in gaining public support when socialization of medicine is threatened.

Dr. Carl E. Clark of Sycamore, chairman of the Advisory Committee to the Illinois Medical Assistants' Association, explained the activities of that group, made up of women employed by physician members of ISMS. He pointed out

that the assistants stress public relations in dealings with patients, obtain valuable advice through lectures and panels, and in general increase their value to their employers.

Dr. Clark suggested that every physician occasionally make a check on the manner in which his assistants handle matters involving contact with patients. The results of bad practices on the part of office employees, he pointed out, can extend from loss of patients and prestige to malpractice suits.

COUNTY TRAINING GROUND

Dr. Robert E. Heerens of the Winnebago County Medical Society explained that the county medical society is excellent training ground for good public relations. He said that publicity is merely a tool in this program and that good professional behavior is a requisite.

Dr. Heerens suggested that county societies sponsor science fairs, disaster planning, emergency call systems, and health education. He cited the importance of interprofessional liaison and working with other community groups. He also pointed out that physicians have a duty to demonstrate to the public the importance of free enterprise in medicine.

The second half of the afternoon program was devoted to legislative matters. Mr. John W. Neal of Chicago, counsel to the Illinois State Medical Society, reported that the Society's legislative efforts have produced a good relationship with legislators. Most members are convinced that the efforts of Illinois physicians are in the interest of the public, he said.

He pointed out that our representatives in the Legislature and in Congress look to the Society for guidance in matters pertaining to health, and that they appreciate having reliable and authoritative information available. He reviewed the record of the recent 70th General Assembly, and said that many health measures in the public interest were passed.

WORKMEN'S COMPENSATION

Dr. Frederick W. Slobe of Chicago, chairman of the Illinois State Medical Society's Committee on Industrial Health, said that although the Workmen's Compensation and Rehabilitation Bill sponsored by the Society failed to pass the last session of the Legislature, certain of its provisions were included in legislation which was enacted.

These included the establishment of the In-

dustrial Commission as an independent agency and the mandatory inclusion of occupational disease coverage. Study is being given to the course the Society should follow concerning future legislation. He emphasized the importance of the profession showing a united front and in getting the support of other groups.

Mr. Walter L. Oblinger of Springfield, associate counsel of the Society, explained that legislative success when the Legislature is in session depends upon a pre-session program which he termed "Operation Cultivation."

He pointed out that the most effective contacts with legislators are on a personal basis, and that it pays to make friends with representatives in Congress and in the Legislature. He said a physician must develop an interest in legislation and show an interest in politics. A county society should have a working legislative committee which keeps abreast of developments and sees to it that pertinent facts are presented to members.

CONGRESS NEEDS ADVICE

Dr. Harlan English of Danville, a councilor of the ISMS and member of the AMA Committee on Legislation, said that because medical care is easy to nationalize those who represent us in Congress need our best advice. They also need our political help at all times.

Dr. English pointed out that federal health spending which before Sputnik amounted to \$2.5 billion a year may soon pass \$3 billion because many congressmen want to get into the spending act regardless of the consequences to the country. The liberal views of the judiciary has done much to undermine the nation's faith in itself, he said.

Mr. C. Joseph Stetler of Chicago, director of the AMA Law Department, stressed that legislators pay more attention to letters from individual physicians, their families, and friends than to correspondence from the AMA. Mr. Stetler, therefore, urged physicians to become informed about pending legislation and to act accordingly to their views on the subject.

He also said that whereas the President has emphasized the importance of increased defense appropriations and de-emphasized domestic programs, particularly in the health field, many members of Congress are facing campaigns for

re-election. Under these circumstances, Congress often has been pressured into passing bad legislation. A symptom of this, Mr. Stetler said, is the attempt to liberalize an already too liberal Social Security law.

The meeting was attended by officers and councilors of the ISMS, public relations and legislative chairmen of county societies, advisors to the public relations committee, and representatives of the Woman's Auxiliary and Illinois Medical Assistants Association.

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Blue Shield is medical unit, not "third party" operation

"Blue Shield Plans exist only to help the medical profession facilitate the provision of its services to the people. . . Blue Shield is an organization of the profession itself, and not a third party between physician and patient."

So declared the Blue Shield Commission in a policy statement. The Commission is the board of directors of "Blue Shield Medical Care Plans" comprising about 70 medical society-sponsored, non-profit Blue Shield Plans. A preponderant majority of the Commissioners are physicians.

The commission explained that a "third party" is a person or agency over whom neither the first party—the patient—nor the second party—the physician—has any direct control.

The first requirement of a Blue Shield medical prepayment plan is that it be approved by the county or state society in the area it serves. The second requirement is that all medical policies and operations be under medical control, and the third that it earn the voluntary participation of at least a majority of the physicians in its territory.

Blue Shield has proved that physicians and patients, working together, can solve the problems of medical economics without the need of a third party to come between them.

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Early immunization

Polio vaccine for infants as young as two months was recommended in a guest editorial in the January 11 issue of the *Journal of the American Medical Association*. Injections are started usually at six months of age, but many infants lose their birth immunity before this time. The American Academy of Pediatrics recommends beginning the vaccine at two months.

Burlington sets aside space for travel to AMA meeting

The Burlington Railroad has set aside blocks of space on its "California Zephyr" for the exclusive use of members of the Illinois State Medical Society and their families leaving Chicago, Thursday, June 19, to attend the AMA annual meeting in San Francisco, June 23-27.

This luxury train goes by way of Omaha, Denver, and Salt Lake City and passes through some of the finest scenic sections of the United States by daylight. The scenery can be viewed from five Vista-Dome cars. All types of accommodations will be available. Family plan rates will prevail on Thursday departures from Chicago.

The train will leave Chicago Thursday at 3:30 p.m. and arrive in San Francisco at 4:55 p.m., Saturday. The return trip will start from San Francisco at 9:25 a.m., with Chicago arrival at 1 p.m., two days later. An optional return will be by way of Portland, Seattle, and Minneapolis.

Reservations must be made prior to May 15. Contact your local railroad ticket agent, the Burlington representative in your community, or Mr. R. L. Schwarz, passenger representative, Burlington Route, 105 West Adams Street, Chicago 3. Picture literature will be sent upon request.

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Where does AMA dollar go?

What does the AMA do with its annual receipts of (about) \$10 million a year? This question was answered by Dr. George F. Lull, secretary-general manager, at a meeting of the Southern Medical Association.

The \$5,192,000 realized from dues and subscriptions was short of the \$5,222,000 expense of printing the *Journal* and other publications of the AMA. This deficit and expenses of all other departments were covered by \$4 million from advertising and other sources.

Expenses were: The public relations department, \$400,000; Council on Medical Education and Hospitals, \$376,000; Bureau of Health Education, \$296,000; Washington office, \$227,000; Council on Medical Service, \$206,000; membership records, \$202,000; Bureau of Medical Economic Research, \$173,000; biographical records, \$155,000; American Medical Education Foundation overhead, \$119,000; law department, \$111,000; Bureau of Exhibits, \$109,000; Coun-

cil on Drugs, \$99,000; Council on Industrial Health, \$76,000; Council on Rural Health, \$68,000; Council on Medical Physics, \$61,000; Council on Foods and Nutrition, \$56,000.

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Hawaii calls members of Illinois State Medical Society

There was an enthusiastic response to "Hawaii Calls" in the February issue of the Illinois Medical Journal.

In case you missed the announcement of the tour to Hawaii after the AMA annual meeting in San Francisco in June, the highlights are repeated.

The tour is being arranged for members of the Illinois State Medical Society, their families and friends. The party will leave by air the night of June 26 and arrive in Honolulu the following morning. Then, until July 5, there will be a steady round of entertainments and scenic trips.

The Hawaiian holiday will include a drive to Mount Tantalus for a superb panoramic view of the Island of Oahu; a visit to Pearl Harbor, Battleship Row, and historic Hickham Field; a three-day Outer Island tour; surf and beach

pastimes, and a luau, or Hawaiian native feast. The stay in Honolulu will be at the beautiful Royal Hawaiian Hotel.

Physicians so inclined also may take advantage of a Hawaiian Summer Medical Conference in Honolulu, July 1-3.

The return trip will start July 5. Those taking a plane will reach the mainland the next morning. Those preferring a boat will have a leisurely and delightful five-day trip aboard the luxury liner, Lurline, which is really "Hawaii at sea." A longer stay at Honolulu may be arranged, if desired.

Complete details are given in a descriptive circular which may be obtained from Mr. W. M. Moloney, vice-president, Harvey R. Mason Travel Company, Inc., Professional Building, Old Orchard, Skokie, Ill.

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Welcome, wives

A cordial invitation is extended to every physician's wife to attend the 30th Annual Convention of the Woman's Auxiliary to the Illinois State Medical Society May 20 to 23, 1958.

Headquarters for the convention will be the



Taking the pig from the imu (underground oven) is a ritual that actually starts off a luau (feast) in Hawaii. The pig, filled with hot lava stones, bedded

in banana and ti-leaves, surrounded by red hot lava stones and heavily wrapped in burlap is buried in the underground pit to steam for many hours.

Sherman Hotel, Chicago, and members of the Hospitality Committee will be at the registration desk in the lobby to welcome all members and guests.

At this meeting an opportunity will be provided to learn of the achievements of the auxiliary and of its plans and program for the future. Round table discussions will allow for an interchange of ideas and prominent speakers will give short talks during the delegate sessions.

Social events will include a Pink Tea on Tuesday afternoon, an unusual musicale following the Wednesday luncheon, and a fashion show in the Crystal Ballroom of the Sheraton-Blackstone on Thursday.

All members of the Convention are invited by the Illinois State Medical Society to attend the Public Relations Dinner on Tuesday evening, and the Annual Dinner on Wednesday evening.

Plan now to attend. We know you will enjoy every minute of the Convention. Additional information will appear in the April issue of the Illinois Medical Journal.

Mrs. Michael G. Maitino
Convention Chairman

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Teamwork

Many physicians like to use a pencil and paper in explaining the nature of an ailment to their patients. A picture or diagram, no matter how crude, is worth a thousand words. This takes little time and is a great comfort to the layman. Better teamwork is obtainable when the patient understands his medical or surgical problem.

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Correction

An item in the December Journal said Social Security taxes pay for nine programs, covering social insurance, public assistance to the needy, and children's services. This is incorrect.

Unemployment compensation and old age and survivors insurance are financed through unemployment and Social Security taxes, respectively. General taxes provide funds for old-age assistance, aid to the needy blind, aid to dependent children, aid to the permanently and totally dis-

abled, maternal and child health services, services for crippled children, and child welfare services.

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AMA pamphlet sets up driver fitness rules

The American Medical Association has issued a pamphlet, "Are You Fit to Drive?" which sets forth certain circumstances under which a person should not drive.

The pamphlet was prepared by the AMA Committee on Medical Aspects of Automobile Injuries and Deaths, in co-operation with the Center for Safety Education, New York University. It is available for distribution through physicians' offices.

Some of the situations which make driving dangerous are: emotional upsets, sleepiness, attitude toward other drivers, medicines, faulty vision, certain nerve and heart disorders, diabetes, old age, and drinking.

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U. S. committee of WMA to hold open meeting

The United States Committee of the World Medical Association will hold an open meeting in San Francisco in connection with the annual meeting of the American Medical Association in June. The purpose is to promote an increase in the American membership of the WMA.

During 1957, the United States Committee enrolled 797 new members, the largest number to join in any one year, but there is room for much further growth.

The United States Committee was established 10 years ago and has been an important support of the World Medical Association. The committee helped to establish the World Medical Journal.

The WMA's 12th general assembly will be held in Copenhagen, Denmark, August 15-20. Further information may be had by writing to Dr. Louis H. Bauer, Secretary-Treasurer, World Medical Association United States Committee, 10 Columbus Circle, New York 19.

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Today's Industrial Physician

Today it is not uncommon to meet an old friend at a medical meeting and find that he is the medical director of one of America's thousands of industrial corporations. The number of industrial physicians is on the increase. The title "Medical Director" is a nice one. The physician in practice has a tendency to look upon such a colleague with envy. The title he has is nice, his pay must be good, the benefits he receives by company association such as retirement plans, vacations, stock options, and the like, sound good. It is also common knowledge that such a physician stops work at 5:00 p.m. and has his week ends to himself.

Who gets into such a seemingly soft job—and what are his duties and responsibilities?

As stated by the committee on practice of the Industrial Medical Association, the medical director is a man of education, training and experience. He is a graduate of an accredited medical school and licensed to practice in the state where he is employed. He has had at least one year's internship in an accredited hospital and has received prior training and experience in industrial medicine. He must have a general knowledge of administration, including industrial and personnel relations. He should have knowledge of work placement requirements and procedures. He must have knowledge of occupational hazards and their control. He must have a knowledge of preventive medical methods and health maintenance. He must have a special knowledge of diagnosis and treatment of oc-

cupational diseases and injuries, including follow-up, rehabilitation, and his responsibilities under workmen's compensation legislation—and lastly, he must have the knowledge of an efficient medical record system and statistics.

It now appears that this medical director is not an ordinary fellow, but that his training and experience are equivalent to that of the best qualified specialist or the highest type of general practitioner. With this background what does he do?

His first job is to be responsible for planning, directing and co-ordinating medical and surgical service for the organization or unit for which he is responsible. This means that he must be a genius at organization and administration. Under his supervision will be nurses, physicians, aids, clerks, statisticians, social workers, and secretaries.

He will be responsible not only to the employees, but to his employers. He must integrate the medical program with all other company activities. He has to recommend plant medical facilities and equipment, and advise on the budget for company medical activities. He must establish scientific standards of physical capacities for work. He must study physical demands analysis so as to place properly his workers.

The medical director must be responsible for the selection of the employees in his unit. This includes the selection of competent medical personnel. He must be training individuals to succeed him or to fit into an expansion program

of his organization. He has to initiate policies, prepare directives, and supervise all medical department personnel.

He has to collaborate with the personnel department in the development and administration of their activities and provide medical advice and assistance to other departments. He must recommend measures for control of all environmental hazards. He has to develop and maintain a program of health maintenance and education for all employees.

The maintenance and utilization of medically acceptable records and statistics will be of importance to both the company and the individual employee. The medical director must maintain the confidential nature of these records.

The medical director certainly has responsibilities that fit his education and his experience. The job he performs is a most needed one and does much to contribute to the welfare of our economy.

Such a mere glance under the surface demonstrates that this job is not a soft one. Like everything else in medicine, it necessitates constant education and the ability to foresee new methods, and to adapt the scientific attitude to industrial problems. Industrial medicine has come a long way from the days when the indus-

trial doctor was merely an expert in cuts and bruises. Today the industrial physician is not only a doctor, but an administrator, an educator, and psychiatrist, and often a priest. And his work has just begun.

The medical director is a health counselor for all employees. He has to co-operate with all community health agencies and above all he must co-operate in an ethical fashion with the employees' personal physician and allied professional organizations.

The industrial physician has a tremendous community responsibility. First of all it is a necessity that he be a part of organized medicine. Through this, he can often keep his proper relationship with his fellow physicians and keep up his education in scientific medicine. On the other hand this gives organized medicine an opportunity to share in the medical director's problems, to help him, and to work with him.

The coming of age of industrial medicine has brought the medical director into prominence. He serves a role in community affairs similar to that of the chief of staff of the hospital or the professor in a medical school. It is up to us who are not active in industrial medicine to understand the medical director, his problems, and his ideals.

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CORRESPONDENCE



Clinics for crippled children listed for April

Twenty-three clinics for Illinois' physically handicapped children have been scheduled for April by the University of Illinois, Division of Services for Crippled Children. Clinics are held in co-operation with local medical and health organizations. Clinicians are selected among private physicians who are certified Board members. Any private physician may refer to or bring to a convenient clinic any child or children for whom he may want examination or consultative services.

April 2 — Hinsdale, Hinsdale Sanitarium

April 2 — Alton (rheumatic fever), Memorial Hospital

April 3 — Cairo, Public Health Building

April 3 — Flora, Clay County Hospital

April 4 — Chicago Heights (cardiac), St. James Hospital

April 8 — East St. Louis, Christian Welfare Hospital

April 8 — Peoria, Children's Hospital (St. Francis)

April 10 — Springfield, St. John's Hospital

April 10 — Watseka, American Legion Hall

April 11 — Evanston, St. Francis Hospital

April 15 — Belleville, St. Elizabeth's Hospital

April 15 — Danville, Lake View Hospital

April 15 — Quincy, Blessing Hospital

April 16 — Chicago Heights (general) St. James Hospital

April 17 — Elmhurst (cardiac), Memorial Hospital of DuPage Co.

April 17 — Rockford, St. Anthony's Hospital

April 22 — Peoria, Children's Hospital (St. Francis)

April 23 — Elgin, Sherman Hospital

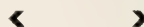
April 23 — Springfield (cerebral palsy), Memorial Hospital

April 24 — Bloomington a.m. (general), p.m. (cerebral palsy), St. Joseph's Hospital

April 24 — Mt. Vernon, Masonic Temple

April 29 — Effingham (rheumatic fever), St. Anthony Hospital

April 30 — Carrollton, Carrollton Grade School



G.P.'s to meet in Dallas

The American Academy of General Practice will hold its 10th annual scientific assembly, March 24-27, in the Dallas Memorial Auditorium, Dallas, Tex. An attendance of 7,000 physicians and guests is expected.

The scientific program, presented in combination with the Dallas Southern Clinical Society, will feature 35 prominent physicians. Ninety scientific and 300 technical exhibits also will be offered.

Dr. Malcom E. Phelps of El Reno, Okla., academy president, will open the meeting. The first day will include discussions of medical, surgical, psychiatric, and adjustment problems

of the aging, and emotional and physical problems of teen-agers.

Other subjects of the meeting will include dizziness, X-ray interpretation, skin diseases, pediatric medicine, coronary thrombosis, duodenal ulcers, urologic problems, accidents, and hypnosis.

Dr. Holland T. Jackson of Ft. Worth will take over as president, March 26.

The Congress of Delegates will convene at the Dallas Statler Hilton, March 22.

Phi Lambda Kappa meeting

The 6th annual meeting of Phi Lambda Kappa will be held at the Deauville Hotel, Miami Beach, April 13 to 20. A five-day scientific program, starting on April 14, will be for the benefit of the general practitioner. Physicians and dentists are invited.

Further information may be obtained from Dr. Samuel L. Lemel, national secretary, Phi Lambda Kappa Fraternity, 1030 Euclid Avenue, Cleveland 15.

Army provides earlier release

A certain number of army medical and dental officers scheduled to complete their two-year service between February 1 and August 31 may be able to return to civilian status after 21 months of active duty, Maj. Gen. Silas B. Hays, surgeon general of the army, announced.

Applications will be approved only where releases will not interfere with the army medical service. The program applies only to those whose actual separations could be effected by June 30.

To hold world congress of gastroenterology

The first World Congress of Gastroenterology, with the American Gastroenterological Association as the host, will be held at the Sheraton Park Hotel, Washington, May 25-31.

More than 200 national and international scientists, physicians, surgeons, roentgenologists, and parasitologists will report on recent advances in gastroenterology.

The five main symposia will cover peptic ulcers, intestinal infections and infestations, malabsorption, nutrition and its effect on the liver and pancreas, and gastric carcinoma. There

will be simultaneous interpretation in English, Spanish, French, and German.

Further information may be had by writing to Dr. H. M. Pollard, secretary-general, World Congress of Gastroenterology, University Hospital, Ann Arbor, Mich.

Allergists to hold meeting

The American College of Allergists will hold its 14th annual meeting at the Shelburne Hotel, Atlantic City, April 23-25. This will be preceded by a three-day graduate instructional course, April 20-22, to be presented by a faculty of 40 instructors.

Further information may be had by writing to the American College of Allergists, 2049 Broadway, Boulder, Colo.

A.C.S. to hold regional meeting in Des Moines

The American College of Surgeons will hold a sectional meeting in Des Moines, March 27-29. Topics will include emergency care of multiple injuries, congenital lesions, cardiac arrest, cancer, jaundiced patients, ovarian tumors, and fluids and electrolytes. Medical motion pictures will be shown.

Among the participants in the program will be the following surgeons from Chicago:

Dr. William E. Adams, "Congenital Lesions of the Lung: Bronchial and Vascular;" Dr. John W. Huffman, "Stress Incontinence in the Female;" Dr. Gerald O. McDonald, "Chemotherapy of Cancer;" Dr. Paul V. Harper, "Interstitial Therapy at Operation."

Additional information may be had by writing to the American College of Surgeons, 40 East Erie Street, Chicago, 11.

Interstate P-G meetings

The Interstate Postgraduate Medical Association of North America announced that its annual scientific assemblies for the next four years will be held as follows: 1958, Cleveland, November 10-13; 1959, Chicago, November 2-5; 1960, Detroit, October 31-November 3; 1961, St. Louis, October 9-12.

The dates were reported at this time in the hope that other medical meetings may be planned without direct conflict.

Congress of Physical Medicine and Rehabilitation to meet

The 36th annual scientific and clinical session of the American Congress of Physical Medicine and Rehabilitation will be held at the Bellevue-Stratford Hotel, Philadelphia, August 24-29. The scientific program will be presented on the last five days, with sessions open to all AMA members.

The society provides an annual award of \$200 to a medical student submitting the best essay on physical medicine and rehabilitation. Manuscripts not exceeding 3,000 words must be submitted by June 2.

Further information may be had by writing to Miss Dorothea C. Augustin, American Congress of Physical Medicine and Rehabilitation, 30 North Michigan Avenue, Chicago 2.

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A.C. of P. names Illinois physicians as fellows

The American College of Physicians named the following Illinois physicians as fellows; Dr. Irving Mack, Chicago, and Dr. Ruth Bernice Balkin, Highland Park.

The following were named associates: Drs. William Dalessandro, Bernard Eisenstein, Jay J. Gold, James J. Hines, and Robert G. Page, Chicago; Stanley E. Goldstein, Decatur; Irvin LeRoy Schweitzer, Freeport; Frank B. Norbury, Jacksonville; Morris Binder, Morton Grove; Bertram G. Nelson, Oak Park; Lawrence J. Knox, Olney; John H. Houseworth, Urbana; John J. Zannini, Waukegan.

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Medical librarians to meet

The Medical Library Association will hold its 57th annual meeting in Rochester, Minn., June 2-6. The theme will be "Advances in Medical Library Practice."

Mr. Thomas E. Keys, librarian of the Mayo Clinic, is the convention chairman. Letters of inquiry should be addressed to him.

Easter seal campaign

The 1958 Easter Seal sale in behalf of crippled children and adults will continue through Easter Sunday, April 6.

A goal of \$200,000 has been set for the Chicago area, according to Mr. Howard L. Willett Sr., campaign chairman for the Chicago Metropolitan Unit, Illinois Association for the Crippled. Last year, 2,820 crippled persons in the Chicago area were helped through seal sales.

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Bureau to provide speakers on psychiatry

The American Psychiatric Association and the American Academy of General Practice have organized General Practitioner Education Project to promote postgraduate psychiatric education for the general practitioner. Among the services offered is a speakers bureau which will provide the names of psychiatrists who are willing to serve as guest lecturers while on vacation trips.

For information, write the G.P. Project, American Psychiatric Association, 1785 Massachusetts Avenue, N.W., Washington 6.

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Industrial health conference to be held in Atlantic City

More than 3,000 occupational health specialists will attend the 13th National Industrial Health Conference in Atlantic City, April 19-25. Emphasis will be on the control of the newer health hazards introduced by a changing technology and on the maintenance of health in industry through preventive medical services.

Papers will cover such subjects as mental health, radiation, noise, skin diseases, rehabilitation, dentistry, nursing, air pollution, and toxicity of material used in industry.

Information and advance registration forms may be obtained from Dr. Edward C. Holmblad, managing director, Industrial Medicine Association, 28 East Jackson Boulevard, Chicago 4.

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THE P. R. PAGE

John A. Mirt



Time to review PR programs

The AMA suggests that every county medical society review its PR program as to its efficiency, accomplishments, and aims. It urges that particular attention be paid to eight basic projects. These are:

(1) Provision of emergency medical care on an around-the-clock basis; (2) establishment of a mediation committee to hear patients' complaints; (3) development of good working relations with press, radio, and TV; (4) maintenance of an active speakers bureau supplemented with other health education activities; (5) organization of a plan to provide medical service for all unable to pay; (6) indoctrination of new society members; (7) initiation of public service projects; (8) participation in citizenship activities.

Other projects suggested in the past have included: promotion of Medical Education Week, April 20-26; use of AMA films; polio inoculation campaign; liaison with medical assistants organizations; promotion of science fairs; disaster planning, and interprofessional liaison.

For 1958, the following additional campaigns should be considered:

(1) Legislation — From every indication, medicine must accelerate its educational campaign, highlighting the values of our free enterprise system and the part voluntary insurance

plays in meeting the cost of medical care.

(2) Sports injuries — Here is a project giving physicians an opportunity to contribute real community service as well as to establish a link with public educators and sports leaders.

(3) Liaison with labor — Organized labor will be exerting more influence in the health and welfare fields than ever before. Rather than waiting until a union health plan is announced and then attempting to deal with it, medical societies should volunteer their guidance and counsel to local AFL-CIO community relations committees on projects relating to health and welfare.

(4) Education — Emphasis should be placed on educating the public in the matter of quackery, judgment in diagnosis and treatment, cost of medical care, and free choice of physician.

Informative material on any of these projects may be obtained from the Public Relations Department of the AMA.

Penalizing insurance holders

Blue Shield Plans and insurance companies providing medical expense coverage are expressing concern over complaints that some physicians are taking advantage of such insurance to raise their charges. The assumption seems to be that any person able to carry this type of insurance is also able to pay a higher surgical or medical fee.

Actually, this is not true in many instances. A person frequently uses this method to budget the cost of expensive and unpredictable medical care when he would be unable to pay out a substantial amount at one time.

The small minority of physicians who are responsible for complaints from policyholders could easily wreck the system of voluntary medical care insurance.

This is a public relations project which deserves immediate attention.

Joint meeting with lawyers

The McLean County Medical Society and the McLean County Bar Association on January 14 staged a joint meeting in the Rogers Hotel, Bloomington. Arranged by Dr. Herman W. Wellmerling, program chairman, it was the consensus that the gathering was a successful interprofessional relations project.

Dr. Leon T. Fruin, president of the medical society, and Mr. Tom Barger, president of the bar association, presided. There was an attendance of 56 physicians and 45 lawyers.

A motion picture, "The Medical Witness," was first shown. This was followed by a panel consisting of Dr. F. Lee Stone of Chicago, past president of the Illinois State Medical Society, and Mr. Lyle W. Allen, attorney of Peoria. Many mutual problems were discussed.

Out of this came a decision to repeat the joint meeting annually. There also was appointed a committee consisting of Drs. Justin C. McNutt, chairman; Robert J. Parker, Charles A. Conklin, J. Wright, and Robert L. Atkinson to meet with a similar bar association committee to smooth out certain situations, including acci-

dent reporting forms and medical witness details.

Newspaper praises PR policy

The Los Angeles *Examiner* in a recent editorial entitled "Medical Triumph" said:

"One of the most gratifying improvements of recent years in the formerly sensitive relationship between the public and the medical profession has been the constructively enlightening attitude of the Los Angeles County Medical Association."

It seems that the society worked out a program with the press which removed the undue fear of the unexplained on the part of the patient and the excessive reserve on the part of the physician. Medicine became big and popular news without marring the high ethical standard of the profession. Acknowledged specialists were named to inform the press on questions which arose, and newspaper accounts generally became accurate.

"An important by-product of the association's public relations policy is the subsidence of clamor for socialized medicine," the *Examiner* said.

Commenting on the editorial, Dr. William F. Quinn, editor of the Los Angeles County Medical Society Bulletin, said:

"You don't get a good press by suddenly pouring on the pressure when you have a particular ax to grind. It is achieved by mutual understanding and willingness to make an effort to understand the other person's problems and point of view . . . We will have a good press and good public relations only as long as we deserve them."

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AT THE EDITOR'S DESK



Reed and Carnick have combined hydrocortisone with a specially developed cool tar for the treatment of eczema and psoriasis. The new combination [Tarcortin] was used successfully on 367 patients with dermatitis, giving complete relief in 165 and partial in 173. Eighty of 83 patients with psoriasis were improved with this remedy.

Winthrop offers Isuprel in pocket-size aerosol dispensers for asthma patients. The Isuprel Mistometer is a self-contained unit, and according to the manufacturers, the bronchodilation resulting from a single inhalation is equivalent to approximately 10 inhalations from hand-bulb nebulizers.

Winthrop also has a new combination sublingual oral tablet called Dilcoron which provides immediate relief from acute attacks of angina pectoris, as well as a more sustained dilatation to prevent subsequent attacks. The outer sublingual layer of the tablet is nitroglycerin. The inner core consists of pentaerythritol tetranitrate, and the two layers are separated by a citrus flavored lamina.

Panafil ointment is Rystan's enzyme debriding agent. The manufacturers claim that the product enhances healing of infected wounds and skin ulcers of diabetic, decubital and varicose origin. Good results were recorded in 37 cases by a group from Boston University School of Medicine. There was a decrease in purulent material, cleaner granulation tissue, and an increased rate of growth in new surface tissue.

The present budget for 1959 recommends ap-

propriations totaling \$2,792,904,412 for programs administered by the United States Department of Health, Education, and Welfare. This is almost as much as the budget for the entire government in Coolidge's time. The money will be allotted as follows: \$17,742,000 will go for general research and services; \$55,923,000 for the National Cancer Institute; \$37,697,000 for mental health activities; \$34,712,000 for the National Heart Institute; \$6,293,000 for dental health activities; \$20,592,000 for arthritis and metabolic disease activities; \$17,497,000 for allergy and infectious disease activities; and \$20,727,000 for neurology and blindness. We hope it will be spent wisely. A like amount was spent last year but there were no headline discoveries.

A new heat exchanger can lower a patient's temperature at an average rate of one degree Fahrenheit every 30 seconds, and raise it with almost equal speed, and control it with an accuracy of one half of a degree. It was developed by Wirt W. Smith of the Surgery Department of Duke University and is used to produce hypothermia in cardiac surgery. The apparatus weighs 11 pounds and is the size of a rolling pin. It consists of a group of slender stainless steel tubes enclosed by a specially constructed steel jacket. The blood flows through the tubes and is cooled or warmed by the water circulating about them. It eliminates the time consuming procedures of ice packs or refrigerated blankets formerly used to lower body temperature.

Accidents took the lives of 94,000 persons last year. Of these approximately 26,000 occurred in the home. Physicians should bring accident hazards to the attention of the families when making house calls. This practice may save many lives.

From the beginning, the Bufferin people have advertised that their product "works twice as fast." The New England Medical Journal of January 30 carries two separate articles and an editorial that refutes this claim. In double blind tests, Batterman and Cronk found no difference in the speed with which other aspirins relieved pain. According to the editorial, "Manufacturers are tempted by high profits to introduce more and more medicinal agents for direct public consumption, and advertising mediums are accepting more and more direct-to-the-public type of drug promotion."

The aged person spends 50 per cent more on health than does the general population — \$122 a year as against \$78, according to "Patterns of Disease."

In 1939 B. A. (before antibiotics) the overall cost of mastoiditis to the patient was \$1,000. Today, \$15 worth of antibiotics will clear up most cases without surgery.

A Dr. F. Philip Lowenfish of New York, reported that injectable Meticortelone Acetate (prednisolone acetate) was of value in the treatment of resistant acute and chronic skin conditions. Itching, inflammation, swelling, and redness were reduced rapidly and in some instances improvement in the more serious forms of dermatoses occurred within a few days. Meticorten tablets produced excellent results in three cases of ivy poisoning. Meti-Derm Cream appeared to be effective in herpes simplex.

The Metropolitan Life Insurance Company reported recently that American women are the

second healthiest in the world. Our female death rate is 6.9 per 1,000 compared with 6.4 per 1,000 per year in Norway. The fair sex did well in all departments except when the death rate in motor vehicle accidents was computed. They have the highest rate in the world — 11 per 100,000 as compared with the lowest, 2 per 100,000 in Israel. The women are so beautiful and so healthy, but oh what drivers.

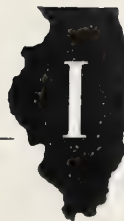
Ayerst Laboratories recently introduced Theruhistin, which stems from a new family of antihistamines. It is reported to be highly potent—, with a low incidence of sedation. It was used on patients ranging in age from 1 to 65 with various allergies, chiefly urticaria, bronchial asthma, vasomotor rhinitis, and hay fever. A good to excellent response was obtained in 80 per cent.

Roerig's Neobon capsules are a new nutritional hormone supplement to combat the senile debility of elderly people. They contain hormones, iron, digestive enzymes, protein, and vitamin-mineral supplements.

In a paper delivered at the joint meeting of the American Society of Clinical Pathologists and College of American Pathologists, physicians were warned not to jump to the immediate conclusion of cancer when suspicious cervical smear results were found in women soon after pregnancy. Changes in the cells are temporary and result from infections and injuries incidental to childbirth. Breast feeding is a factor also because of its hormonal effects. These conclusions were based on a review of smears taken on 125 women, six to eight weeks after delivery. An unusually high percentage of suspicious smears was noticed in 15 cases (12 per cent). Not one case of cervical malignancy was found in the 11 patients who cooperated in the follow-up examinations.

According to the January General Practitioner, cockroaches may play a role in the transmission of poliomyelitis.

NEWS of the STATE



ADAMS

ANNUAL SOCIAL MEETING. Adams County Medical Society held their social meeting at the Quincy Country Club, January 25, when the members entertained their wives at a dinner dance. A social hour preceded the dinner during which all were guests of Dr. and Mrs. Guy L. Tourney. Dr. Tourney is the 1958 president of the society. The only after dinner speech was a humorous sketch by Dr. Kenneth H. Keeton. The program was provided by Harriet Musolino and dancing followed to organ music by Russell Cox. The Entertainment Committee consisted of Drs. Carl F. H. Pfeiffer, Richard E. Meyer, and William U. McReynolds.

SPEAKER. Dr. Morris Fishbein of Chicago, president elect of the American Medical Writers' Association, will speak before the Adams County Medical Society in Quincy, March 25. This is the Society's eighth annual public relations meeting which will be open to the public.

BOONE COUNTY

OFFICERS ELECTED. Dr. Gordon J. Kaske was elected president of the Boone County Medical Society for 1958, and Dr. Everett F. Dettmann, secretary.

BUREAU

NEW PRESIDENT. Dr. Russel J. Simonetta, Spring Valley is now president of the Bureau County Medical Society.

CARROLL

NEW OFFICERS. The Carroll County Medical Society elected the following officers for 1958: Drs. J. B. Schreiter, president; C. G. Piper, secretary-treasurer; E. C. Turner, delegate; and R. H. Petty, alternate.

CLINTON

NEW OFFICERS. The Clinton County Medical Society elected the following officers for 1958: Drs. H. B. Warren, president; Dr. F. H. Ketterer, vice president; and R. D. Roane, secretary and treasurer.

RESOLUTION. At the January meeting this resolution was passed: We the Clinton County Medical Society endorse a uniform standard insurance form to be used by all insurance companies for accident and health insurance and to contain the name of the insurance company printed on the form.

COOK

FACULTY APPOINTMENTS. The following have been appointed to the faculty at Chicago Medical School: Drs. Abraham I. Gimble, clinical instructor in medicine; Eli M. Katz, clinical instructor in medicine; Alvin Somberg, clinical assistant professor of medicine; Samuel B. Spira, clinical assistant professor of medicine; Ernest Teller, clinical assistant professor of medicine; Robert S. Pildes, clinical assistant in obstetrics and gynecology; Wallace R. Brockbank, clinical

associate in psychiatry; Jerome I. Katz, clinical assistant in psychiatry; and Jerome Nadelhaft, assistant professor of radiology.

STUDY OF DIABETES. An important training program for the study and treatment of diabetes is currently under way at Chicago Medical School under the direction of Dr. Piero P. Foa, professor of physiology. The program has been made possible by a grant of \$10,622 from the U. S. Public Health Service.

NEW OFFICERS. Mr. Irving Harris has been made the new president of Michael Reese Hospital. Dr. Irving Wolin, orthopedic surgeon and associate clinical professor of orthopedic surgery at Chicago Medical School was elected 1958 president of the medical staff, and Dr. David H. Rosenberg, department of medicine is now vice president.

HONORED. Seven north side physicians with 30 years or more of service at Michael Reese Hospital Medical Center were honored recently in ceremonies in the center's auditorium. They are Drs. L. Beno Bernheimer, William Buchbinder, Nathan N. Crohn, Roy R. Grinker, Jack S. Grove, Samuel J. Meyer, and Sigfried Strauss.

APPOINTMENTS. Hutton D. Slade, chief of microbiology at the Rheumatic Fever Research Institute, Chicago, has been named associate professor of microbiology at Northwestern University Medical School. His research will center on the study of the life processes of streptococci; their structure, physiology, and biochemical reactions; and the relationship of these properties to streptococcal disease, particularly rheumatic fever. Professor Slade studied at the University of Maryland and received his Ph.D. in bacterial physiology from Iowa State College. He is the author of numerous publications on streptococcal work and has been named an established investigator by the American Heart Association.

NEW POST. Dr. Howard L. Alt has been appointed chief of the division of medicine at Passavant Memorial Hospital, Chicago. He succeeds Dr. Arthur R. Colwell who resigned to devote more time to Northwestern University Medical School where he is chairman of the department of medicine.

STAFF APPOINTMENTS. Dr. Joseph F. Mallach was elected chief of staff at Wesley Memorial Hospital; Dr. Edward M. Dorr, vice chief of staff; and Dr. Durand Smith, secretary-treasurer.

HONORS. Dr. Carl C. Lindergren, director of the biological research laboratory at Southern Illinois University, was honored Feb. 28 at the 11th annual Pasteur dinner for his outstanding contribution to bacteriology, mycology, and genetics. The award was given by the Society of Illinois Bacteriologists. The findings of Lindergren and co-workers challenged one of the basic laws of genetics; changes were induced in a yeast cell that could be inherited by the cell's offspring.

Dr. Ralph V. Sintzel, 73, of Morton Grove, has been made an honorary life member of the Skokie board of health after serving as its chairman for 51 years.

Dr. Walter S. Barnes celebrated his 89th birthday. A gynecologist and obstetrician, Dr. Barnes helped establish the first women's surgical clinic at Provident Hospital and a similar clinic at the Municipal Tuberculosis Sanitarium. He was affiliated with Mercy Hospital for 65 years.

RE-ELECTED. Dr. Foster L. McMillan has been re-elected president of St. Luke's medical staff of Presbyterian-St. Luke's Hospital.

ART SHOW. A one man show of paintings by Dr. Emil W. D. Hauser, orthopedic surgeon, Winnetka, was shown the last week of January in the Highland Park Woman's Club. Dr. Hauser, a member of the American Physicians Art Association, has been painting as a hobby for 16 years. He is a staff member of Passavant Memorial Hospital, and founder of Winnetka Rehabilitation Center.

HEART RESEARCH PROJECT. Loyola University alumni donated proceeds from their annual Valentine Ball, February 15, to heart disease research. The formal dinner dance was a memorial to Dr. Robert Dillon, a 1946 graduate of Loyola's Stritch School of Medicine, who died last November, a victim of rheumatic heart disease. The heart research program in Dr. Dillon's memory is being carried on by several Loyola medical school scientists.

JAIL HOSPITAL. A former dormitory on the first floor of Cook County Jail now serves inmate patients as a 50-bed hospital. Ninety per cent of the inmate patients, all but the more serious surgical cases, are to be treated inside the jail. The formal dedication took place February 3.

MARY THOMPSON HOSPITAL. In keeping with Chicago's ever growing importance as a medical

center Mary Thompson Hospital, established in 1865, is undergoing extensive remodeling. Included in the newly completed parts are the diagnostic center, modernized pharmacy, library, diet kitchen, and patient lounge. Dr. Evangeline D. Stenhouse is current president of the medical staff and Dr. M. Alice Phillips has been named director of medical service. This is one of two hospitals in the country (the other in Boston) whose attending staff is composed entirely of women. Recently male physicians have been admitted to its consulting and courtesy staff; and 20 per cent of its admissions are men.

LECTURES. Speakers in the remaining series of 10 lectures on the history of surgery and related sciences held in the International Surgeons Hall of Fame, 1524 Lake Shore Drive, Chicago will be: "Radiation in the Service of Surgery," Eugene F. Lutterbeck, professor of radiology, Cook County Graduate School of Medicine, on April 15; "Endocrinology and Surgery," Rachmiel Levine, director of medical education and chairman of the department of medicine, Michael Reese hospital, on April 29; and "Historical Facts about Morgagni, Rokitsanski, and Virschow, Pathologists," Esmond R. Long, emeritus professor of pathology, Henry Phipps Institute, University of Pennsylvania, on May 13. These free lectures are open to the medical profession and the public.

The sixth lecture in the eighth annual North Shore Hospital series was held at 225 Sheridan Road, Winnetka, March 5. Dr. Joseph B. Cramer, associate professor and director of child psychiatry, Albert Einstein College of Medicine, discussed "Management of Social Adjustment and Behavior Problems in Adolescence."

Dr. Ilza Veith, president of the Society of Medical History, Chicago, will give the annual D. J. Davis Memorial Lecture on Medical History at the Dental-Medical-Pharmacy Building, University of Illinois, 1853 West Polk Street, Chicago, April 16. Dr. Veith's subject will be "Oriental Medicine and Its Concepts of the Soul."

NEPHROSIS FOUNDATION. By official proclamation, the month of March has been declared, "Nephrosis Month" by Governor Stratton of Illinois and Mayor Daley of Chicago. The Chicago League for Nephritic Children was founded 10 years ago as a non-profit organization incor-

porated in the State of Illinois to raise funds to further research in nephrosis, nephritis, and related kidney diseases. The organization is affiliated with the National Nephrosis Foundation and is now known as the Nephrosis Foundation of Chicago. The funds raised are used to support research.

HEART CLINIC. The establishment of a cardiovascular research and surgical unit in January at St. Francis Hospital, Evanston, has been made possible by the grant of an anonymous philanthropic group. It provides for a heart station with maintenance for the first three years, and the program is to be in effect throughout 1958.

METABOLIC UNIT. A new metabolic unit for clinical research and treatment of patients has been opened in Presbyterian-St. Luke's Hospital. It provides everything necessary for preparation of food, control of the patient's environment, and collection of specimens for analysis. Immediate emphasis will be placed on treating patients suffering from obesity and disorders of calcium metabolism.

HEART STATION. Passavant Memorial Hospital has opened a cardiac catheterization laboratory, directed by Dr. Paul Kezdi. The heart station, with new electronic equipment, now operates at Northwestern but will move to Passavant's new addition as part of the Fred W. Fitz Cardiac Center.

CITATION. At the 85th annual meeting of the American Public Health Association, 1957, Archibald L. Hoyne received a citation for 40 years membership. He was elected also to fellowship.

MEETINGS. The regular monthly meeting of the Chicago Neurological Society was held February 11. The program included: "Malignant Disease of the Spinal Extradural Space," by Joseph P. Evans and presented by John F. Mullan; "Clinical and Pathological Report of an Unusual Case of Encephalitis," Walter R. Kirschbaum and presented by Louis Jensen; "Nucleoprotein Metabolism in the Central Nervous System and the Neurologic Effects of a Nucleic Acid Antimetabolite," Harold Koenig.

The Society of Medical History of Chicago met February 12. Kathleen Worst, Librarian, American College of Surgeons, spoke on "Stephen Hales, Parson-Physiologist;" and Leo M. Zimmerman, M.D., Chairman, Department of

Surgery, Chicago Medical School, spoke on "Henri de Mondeville, Revolutionary, Iconoclast, Idealist, and Surgeon."

On February 10, the Chicago Society of Anesthesiologists had as speaker Sidney Alpert, M.D. professor, department of anesthesiology, George Washington University School of Medicine. His topic was "Blood Volume Determination by Means of Isotopes."

At the meeting of the Chicago Society of Internal Medicine January 27, there were three papers presented: "Observation on the Absorption, Distribution and Excretion of Mecamylamine in Rats and Man" by M.D. Milne, M.D. and Robert C. Muehrcke, M.D. 2. "Epidemic Influenza Due to the Asian Strain in a Military Population" by Clayton G. Loosli, M.D., Dorothy Hamre, Ph. D. and Captain Van C. Tipton, MC, USN. 3. "Dissecting Aneurysms of the Aorta" by Jakub G. Schlichter, M.D.

The regular meeting of the American Medical Women's Association, Branch No. 2, was held February 12. The program was "Changes in the Treatment of Iron Deficiency Anemia," with Drs. Bertha Isaacs, Rosita Pildes, Betty Hahnenman, and Lilly Rappolt participating.

INSTITUTE OF MEDICINE OF CHICAGO. The Fellows of the Institute elected Edwin F. Hirsch, Herbert E. Longenecker, and Henry T. Ricketts to serve as members of the Board of Governors for terms of five years each. Albert Vanderkloot was elected to serve as a member of the Board of Governors for three years to fill the unexpired term of LeRoy H. Sloan, resigned. The Board elected the following officers for 1958: Josiah J. Moore, president; Sidney Strauss, vice president; George H. Coleman, secretary; E. Lee Strohl, treasurer; and Henry T. Ricketts, Chairman of the board of governors.

EFFINGHAM

NEW OFFICERS. The officers of the Effingham County Medical Society for 1958 are: Drs. Judson V. Phillips, president; Harold J. Evans, vice president; and J. J. Devitt, secretary-treasurer.

FULTON

TALK. Dr. Fred Clayton of Peoria spoke on Recent Trends in Ear, Nose, and Throat Treatment before the Fulton County Medical Society in Canton on Jan. 24.

MACON

HONORED. Dr. Thomas W. Samuels, Jr., 34, of Decatur was named the "Young Man of the Year" by the Junior Chamber of Commerce, January 22. The award was presented by Mayor Clarence A. Sablotny at the Jaycees annual Bosses Night dinner in the Decatur Club. The selection of Dr. Samuels was based on his many activities in community service. He is a medical graduate of the University of Illinois, and is on the teaching staff of Cook County Hospital and Loyola University Medical School in Chicago.

The Jaycee Human Relations award in business and industry went to Irwin Neisler & Company, pharmaceutical manufacturers, organized in Decatur, 1886.

50 YEAR CLUB. At a recent meeting of the Macon County Medical Society, the 50 Year Club initiated Dr. Clarence E. McClelland and presented him with the club's plaque.

RICHLAND

POSTGRADUATE CONFERENCE. The Richland County Medical Society was host, February 27, to physicians from a dozen surrounding counties, at a luncheon at the Hotel Litz, Olney.

This preceded a postgraduate conference at which speakers from the University of Illinois College of Medicine, Chicago, discussed problems concerning medicine, surgery and pediatrics, and the use of radioisotopes in diagnosis and therapy. The conference was arranged by the Illinois State Medical Society's Committee on Postgraduate Medical Education and Scientific Service.

The meeting was held at the Richland Memorial Hospital. The afternoon speakers included: Drs. James D. Majarakis, Lindon Seed, and John R. Wolff, all of Chicago.

Dr. Harlan English, Danville, Councilor for the 8th district of the society, presided at the afternoon meeting, and spoke at the dinner meeting. The evening chairman was Dr. James W. Landis, Olney, president of the Richland County Medical Society.

SANGAMON

SPEAKER. At the regular February meeting of the Sangamon County Medical Society, Dr. Ralph A. Kinsella, professor of medicine, St. Louis University, spoke on "Staphylococcal Infections."

GENERAL

RABIES CONFERENCE. The Great Lakes Regional Rabies Conference was held Feb. 19-20 at the Hotel LaSalle, Chicago. Illinois, Indiana, Ohio, Michigan, Wisconsin, Iowa, and Minnesota were the participating states.

CONFERENCE. The Illinois Heart Association and the Chicago Heart Association have completed their plans for the second annual statewide conference on diseases of the heart. The program is planned to present the latest concepts in cardiovascular disease of value to the practicing physician. The meeting is scheduled at the Pere Marquette Hotel, Peoria, on March 27. Four talks are part of the program—"Current Concepts of Coronary Atherosclerosis," Richard J. Jones, M.D.; "Treatment of Coronary Artery Disease," Oglesby Paul, M.D.; "Heart Disease—Real or Imaginary," A. Carlton Ernstene, M.D.; and "What Has Cardiac Surgery to Offer from Acquired Heart Disease?" C. Walton Lillehei, M.D.

LECTURES ARRANGED BY THE ILLINOIS STATE MEDICAL SOCIETY:

ANTHONY J. NICOSIA, associate professor of surgery, Cook County Graduate School of Medicine, addressed the Englewood Branch of the Chicago Medical Society, February 4, on "Emergency Care of Abdominal Injuries."

RUDOLF DREIKURS, professor of psychiatry, Chicago Medical School, addressed the Congregation Mt. Sinai, February 11, on "Mental Health."

STUART ABEL, assistant professor of obstetrics and gynecology, Northwestern University Medical School, addressed the LaSalle County Medical Society in Ottawa, February 13, on "Malignancy."

PATRICK H. McNULTY, assistant clinical professor of urology, Stritch School of Medicine of Loyola University, addressed the Stephenson County Medical Society in Freeport, February 20, on "Hydronephrosis."

LOUIS RUBIN, Rockford Clinic, addressed the Whiteside and Lee County Medical Societies in Sterling, February 20, on "Treatment of Common Skin Diseases."

WARREN W. YOUNG, member of the staff of the Roseland Community Hospital, Calumet City Community Health Association in Calumet City, March 20, on "Diabetes."

ALFRED D. BIGGS, assistant professor of pedi-

atrics, Northwestern University Medical School, Kellogg School Parent Teacher Association, March 24, on "Health Problems of the Grammar School Age Child."

GEORGE M. CUMMINS, associate in medicine, Northwestern University Medical School, Woman's Auxiliary to the Lake County Medical Society in Waukegan, March 25, on "How to Keep Your Doctor Husband Alive."

ALAN R. FEINBERG, instructor in medicine, Northwestern University Medical School, Stock Yards Branch of the Chicago Medical Society, April 18, on "Diagnosis and Treatment of Severe Asthma."

BENJAMIN BLACKMAN, clinical assistant in neurology and psychiatry, Northwestern University Medical School, Golda Myerson Club of Pioneer Women, April 26, on "Mental Health."

DEATHS

CHANNING W. BARRETT*, retired, Chicago, who graduated at Wayne University College of Medicine, Detroit, in 1895, died January 29, aged 91, in the Veterans Hospital in Fayetteville, Arkansas, after a long illness. He was former chairman of the Department of Gynecology at Cook County Hospital, and from 1899 to 1926, he was chairman of the Department of Obstetrics and Gynecology at the University of Illinois College of Medicine. He was a founding member of the American College of Surgeons, past president of the Chicago Gynecological Society, and past president of the North Side Branch of the Chicago Medical Society.

GENE BURROWS, Chicago, who graduated at the Chicago Medical School in 1917, died January 8, aged 76. He had practiced as an industrial surgeon for 36 years.

JAMES F. COX*, Chicago, who graduated at Rush Medical College in 1909, died January 9, aged 84. He was a retired medical director of the Illinois Bell Telephone Company. He had held the post for 17 years.

ROBERT DESSENT*, Chicago, who graduated at the University of Illinois College of Medicine in 1924, died January 14, aged 58. He had been epidemiologist and director of maternal and child hygiene for the Cook County Health Department since 1943. He was district health superintendent of Illinois for the Department of Public Health from 1941 to 1943, and before that, clinic physician for the Chicago Infant

*Indicates member of the Illinois State Medical Society.

Welfare Society, and a field health officer for the Chicago Board of Health.

GERRY B. DUDLEY*, retired, Charleston, who graduated at Cornell University Medical School, New York, in 1904, died January 16, aged 82. He was Councilor for the Eighth District of the Illinois State Medical Society for one term (1924, 1925 and 1926). In 1956 he was made a member of the Society's "Fifty Year Club," having practiced medicine in the state for 50 years.

CHARLES P. ECK*, Chicago, who graduated at the University of Illinois College of Medicine in 1916, died January 29, aged 68. He was associated with the Cook County Department of Public Health.

PERCY D. HALL*, Chicago, who graduated at the Chicago Medical School in 1929, died in the Passavant Memorial Hospital August 13, aged 58, of acute myocardial infarction and arteriosclerosis.

GIDEON H. HOFFMAN*, retired, Kewanee, who graduated at Western Reserve University School of Medicine, Cleveland, in 1898, died January 26, aged 86. He was former chief of staff at St. Francis and Kewanee Public Hospitals.

WILLIAM HERBERT HOLBROCK*, Peoria, who graduated at Northwestern University Medical School in 1923, died October 31, aged 62, of arteriosclerotic heart disease. He was a member of the American Urological Association. For many years he was a member and for two years president of the staff of St. Francis Hospital in Peoria.

GLEN R. INGRAM*, Champaign, who graduated at the Hahnemann Medical College and Hospital in 1916, died recently, aged 71.

VIDA A. LATHAM*, Chicago, who had a degree in dentistry from the University of Michigan, graduated at Northwestern University Woman's Medical School in 1895. She died January 17 at the age of 91. In 1936 the Microscopical Society of Illinois recognized her work in microscopic science with a testimonial dinner; last November she was given a merit award by the Chicago Technical Societies Council. Also in 1957, the Zonta Club, an organization of professional women, of which she was a member, named her "woman of the year." At one time, she taught medicine at Rush Medical College, the University of Chicago, and Northwestern University Medical School.

PRENTISS MCKENZIE, retired, Chicago, who graduated at Jenner Medicine College in 1916, died in a rest home February 1, aged 85.

JOHN Q. ROANE*, Carlyle, who graduated at Missouri Medical College in 1898, died December 29, aged 83. He served as secretary of the Clinton County Medical Society for 50 years; he had also been president. In 1948 he was honored with a membership pin in the "Fifty Year Club" of the Illinois State Medical Society.

OSCAR T. ROBERG*, retired, St. Petersburg, Florida, formerly of Chicago, who graduated at Rush Medical College in 1899, died January 18, aged 81. He was formerly chief surgeon at the Swedish Covenant Hospital.

WILLIAM A. RUPP*, retired, Chicago, who graduated at Northwestern University Medical School in 1900, died February 4, aged 81. He was a member of the staff of the South Shore Hospital.

SAMUEL J. RUSSELL*, retired, Kenilworth, who graduated at the University of Illinois College of Medicine in 1904, died January 17, in Hemet, California. He was 87.

ROY F. STANTON*, East St. Louis, who graduated at St. Louis University School of Medicine in 1902, died in April last year, aged 78.

JOHN A. SULDANE*, Chicago, who graduated at St. Louis University School of Medicine in 1910, died February 6, aged 72. He was a member of the staff of St. Elizabeth's Hospital for 30 years.

MARION L. WHITE*, Dixon, who graduated at Keokuk Medical College, Iowa, in 1894, died in December.

ELVIN JAMES WILEY*, Elizabeth, who graduated at Loyola University School of Medicine in 1927, died November 20, aged 57, of cerebral vascular accident and hypertension. He was associated with St. Francis and Deaconess Hospitals in Freeport.

HARLOW M. WOLFE*, Taylorville, who graduated at St. Louis University School of Medicine in 1906, died November 24, aged 77. In 1956, he received the "Fifty Year Club" award from the Illinois State Medical Society for having practiced medicine 50 years in Taylorville.

ORIE CHRIS YODER*, Peru, who graduated at Rush Medical College in 1909, died November 8, aged 77, of uremia.

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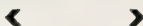
BOOK REVIEWS



A TEXT BOOK OF X-RAY DIAGNOSIS, Vol. I, Head and Neck, edited by S. C. Shands and P. Kelly. \$18. 3rd edition, W. B. Saunders Co., Philadelphia and London, 1957.

This volume, one of four of the complete work, embraces the central nervous system, teeth, and jaws; eye; accessory nasal sinuses; and ear and temporal bone. Radiographic techniques, roentgenological anatomy, pathology, and diagnostic evidence are well covered in each section. The third edition has nearly a hundred more pages than the previous edition, giving wider coverage to special studies such as cerebral angiography.

Each chapter has excellent references and the index is easy to follow. Since the first edition in 1939, this work has become a standard reference in diagnostic roentgenology.



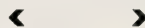
SYNOPSIS OF PATHOLOGY. Fourth edition by W. A. D. Anderson, M.A., M.D., F.A.C.P., F.C.A.P., professor of pathology, University of Miami School of Medicine, director of pathology laboratories, Jackson Memorial Hospital, Miami, Florida. \$8.75. Pp. 829, with 328 illustrations, C. V. Moody Co., St. Louis, 1957.

This volume fills a gap existing between elementary volumes of pathology and the voluminous larger textbooks. Pathology is presented in a compact and condensed form. There are no extra words; every one is essential and pertinent

to the subject. The format is in dictionary form.

The fact that it is the fourth edition speaks well for the author's production. No better volume for quick orientation and description of changes produced by diseases in tissues can be used than this one. For a general review and a refresher course of the whole subject of pathology it is ideal for the student and the practicing physician.

C.P.B.



PRACTICAL GYNECOLOGY. By Walter J. Reich, M.D., F.A.C.S., F.I.C.S., attending gynecologist and section chief, Fantus Clinics of the Cook County Hospital; attending gynecologist, Cook County Hospital; professor of gynecology, Cook County Graduate School of Medicine; assistant professor of obstetrics and gynecology, Chicago Medical School; and Mitchell J. Nechtow, M.D., F.A.C.S., F.I.C.S., associate attending gynecologist, Cook County Hospital and Fantus Gynecologic Clinic; associate professor of gynecology and obstetrics, Chicago Medical School; associate professor of gynecology, Cook County Graduate School of Medicine. \$12.50. Pp. 648, with 284 illustrations, 2nd edition, J. B. Lippincott Co., Philadelphia and Montreal, 1957.

The content of this book is exactly what the title affirms — a practical gynecology for general practitioners. Throughout the book there is

(Continued on page 64)

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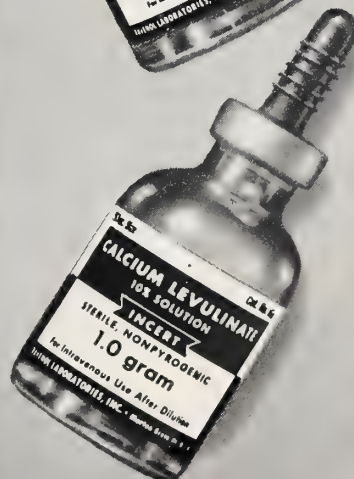
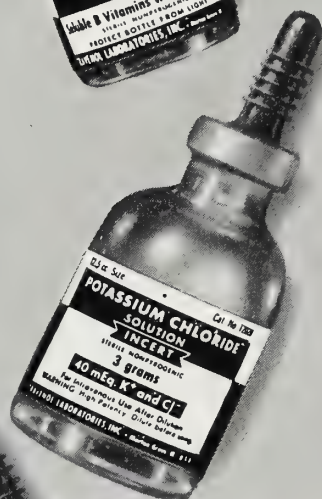
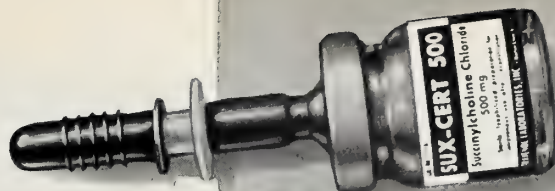
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BOOK REVIEWS (Continued)

full consideration of the newer concepts and current practices in gynecology as well as authoritative descriptions of basic and time tested methods and procedures.

This is the second edition and nine new chapters have been added. Cytology in gynecology enables the detection of ovulation time. The importance of the Papanicolaou smear test receives its justly deserved consideration. One of the useful characteristics of the book is the description in a lucid manner of the tests mentioned and the detail in which various treatments are to be applied. Radiation therapy in gynecology is well considered and no prejudice appears in discussing some of its advantages.

Some of the other newly added items are those of the acute gynecologic abdomen, fibroids of the uterus, tumor of the ovary, considered primarily to further early detection of carcinoma. Under the heading pediatric gynecology, the diseases of the female early in life are taken up and naturally the psychological aspects of management are included also. Another newly added item is the

chapter on Pitfalls in Gynecologic Diagnoses. This, the authors state, was added because of the many demands of students and practitioners.

Almost any physician who has been puzzled by arriving at a diagnosis in what may be an early pregnancy, will be more than interested in reading the portion of this book considering this perplexing diagnosis. The work is instructive; in some instances it is a bit verbose but perhaps necessarily so.

C.P.B.

BOOKS RECEIVED

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

THE NEUROSES AND THEIR TREATMENT. Edited by Edward Podolsky, M.D., Department of Psychiatry, Kings County Hospital, Brooklyn, New York, psychiatrist, Boro Medical Center, Brooklyn, New York. Philosophical Library, New York. \$10.00.

HUMAN BIOCHEMISTRY. By Israel S. Kleiner, Ph. D., Professor of Biochemistry and Director of the Department of Biochemistry, New York Medical Col-

(Continued on page 72)

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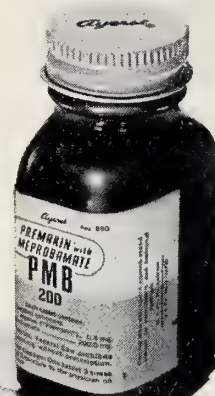
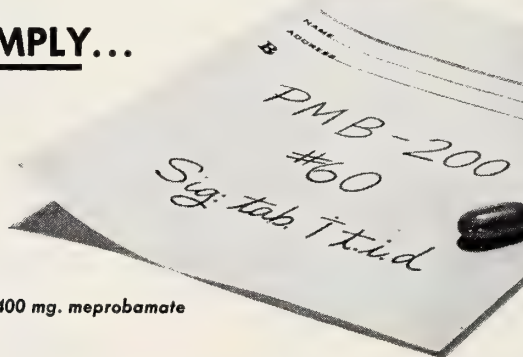
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BOOKS RECEIVED (Continued)

lege, Flower and Fifth Avenue Hospitals; formerly associate, The Rockefeller Institute for Medical Research, New York; and James M. Orten, Ph. D., Professor of Physiological Chemistry, Wayne State University College of Medicine, Detroit, Michigan. 94 text illustrations and 5 color plates. 5th edition. The C. V. Mosby Company, St. Louis, Missouri. \$9.00.

GENERAL DIAGNOSIS AND THERAPY OF SKIN DISEASES — an introduction to dermatology for students and physicians. By Hermann Werner Siemens, M. D., Professor of skin and venereal diseases at the University of Leiden, Holland. Translated from the German edition by Kurt Wiener, M. D., dermatologist, Mount Sinai Hospital, St. Michael Hospital, Evangelical Deaconess Hospital, Milwaukee, Wisconsin. 375 illustrations. The University of Chicago Press, \$10.00.

TEXTBOOK OF GYNECOLOGY. By John I. Brewer, B. S., M. D., Ph. D., professor of obstetrics and gynecology, Northwestern University Medical School, Chief of gynecology and obstetrics, Passavant Memorial Hospital, Chicago. Second edition. The Williams & Wilkins Company, Baltimore, \$15.00.

YOU MUST RELAX. By Edmund Jacobson, M. D. Fourth edition, revised and enlarged. McGraw Hill Book Company, Inc., 330 West 42nd Street, New York 36, New York. \$4.50.

TEXTBOOK OF VIROLOGY for students and practitioners of medicine. By A. J. Rhodes, M. D., F. R. C. P. (Edin.), F.R.S. C., Director, School of Hygiene, University of Toronto, Professor of Microbiology, School of Hygiene, University of Toronto; and Virologist, The Hospital for Sick Children, Toronto and C. E. vanRooyen, M. D., D. Sc. (Edin.) M. R. C. P. (Lond.), R. R. C. P. (C) professor of bacteriology, Dalhousie University, Halifax, Nova Scotia. Third edition. The Williams & Wilkins Company, Baltimore, 1958. \$10.00.

CARDIOVASCULAR COLLAPSE IN THE OPERATING ROOM. By Herbert E. Natof, M. D., Assistant in Anesthesia, University of Illinois, College of Medicine and Max S. Sadove, M. D., Professor of Surgery (Anesthesiology), University of Illinois, College of Medicine, Head, Department of Anesthesiology, Research and Educational Hospitals, Chicago. Foreword by Warren H. Cole, M. D., J. B. Lippincott Company, Philadelphia and Montreal. \$9.00.

PHYSICAL METHODS IN PHYSIOLOGY. By W. T. Catton, M. Sc., Physiology Department, King's College, Newcastle-upon-Tyne. Philosophical Library, New York. \$10.00.

HOSPITAL ACCREDITATION REFERENCES. American Hospital Association, Chicago, Illinois. \$3.25.

CORTISONE THERAPY. Mainly Applied to the Rheumatic Diseases. By J. H. Glyn, M. A. (Cantab.), M. D., N. R. C. P., D. Phys. Med. Philosophical Library Inc., New York, New York. \$10.00.

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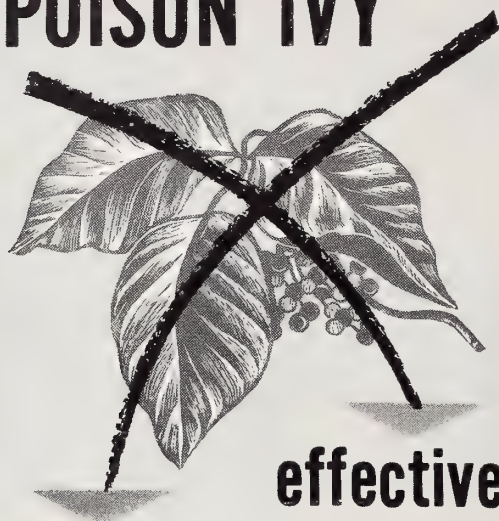
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The combined medical course

The premedical student of today is to some degree in a difficult position, far more so than in my youth. He may greatly desire to become a well educated person in college, but he also wants to become a physician, and to do the latter he must gain admission to a medical school. If then, to get into medical school, which we must admit is a highly competitive business, he feels that he has to get the highest possible marks in prescribed premedical studies, he gives his major effort to these. Often this will be to the detriment of his general education. A real dilemma.

I have dreamed up a program which I think might solve this problem, but so far I have not succeeded in getting anyone to try it out. It would be, briefly, for a faculty of arts and sciences to co-operate with the preclinical departments of a medical school, to offer to students a combined general and professional educational course which would run along uninterruptedly for five or six years, at the end of which time they would be qualified to enter the third year class of a medical school. There would be no difficulty in getting into medical school at that level after such an education. It is essentially what is done in Britain and on the continent of Europe. I would like to see it attempted here. *J. H. Means, M.D. As the Twig Is Bent. J. Kansas M. Soc. Nov. 1957.*

< >

Diagnosis before treatment

We re-emphasize the importance of correct diagnosis as tantamount to proper treatment of pelvic infections. The surgical treatment should be individualized to the age of the patient and the existing pathology present at the time of operation. Beware of falling into the category of simply removing pelvic reproduction organs as a cure-all for pelvic inflammatory disease. Treat acute infections medically with antibiotics, bed rest, and palliative therapy but not surgically. Prior to operation be certain that the temperature and white blood count are normal and that the sedimentation rate is rapidly decreasing. Judicious use of antibiotics, prior to, during, and following surgery is recommended. *Charles R. Freed, M.D. and Raymond C. Chatfield, M.D., Surgical Treatment of Pelvic Inflammatory Disease. Rocky Mountain M.J. Sept. 1957.*

< >

"The greater a man, the greater his courtesy."

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Provides the following percentages of Minimum Daily Requirements per teaspoonful:

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B ₁	2000%	1333%	1000%
Iron	400%	300%	300%

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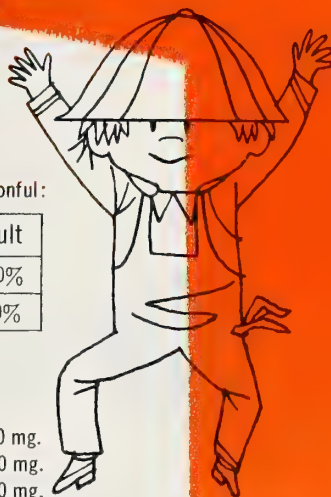
Each teaspoonful (5 cc.) contains:

L-Lysine HCl	300 mg.
Ferric Pyrophosphate (Soluble)	250 mg.
Iron (as Ferric Pyrophosphate)	30 mg.
Vitamin B ₁₂ Crystalline	25 mcgm.
Thiamine Mononitrate (B ₁)	10 mg.
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Thyroidectomy

For treatment of toxic diffuse goiter, I still favor thyroidectomy after preparation of the patient with propylthiouracil and iodine. Radioactive iodine is effective in eliminating thyrotoxicosis, but the danger of production of carcinoma by this agent cannot be excluded completely, particularly in view of the high incidence of radiation to the neck region (in infancy) in patients 15 years or younger with carcinoma of the thyroid. For patients with toxic nodular goiter, thyroidectomy after reduction of thyrotoxicity with propylthiouracil and iodine appears to be the preferred treatment. There is agreement that radioactive iodine is indicated in recurrent toxic goiter, in very poor risk patients, and when operative treatment is refused; the agent is contraindicated in pregnant or lactating women and in children with toxic goiter.

For treatment of carcinoma of the thyroid I recommend radical neck dissection. Results will be much better in papillary carcinoma, in which group the five year survival rate is expected to be as high as 75 per cent. Desiccated thyroid is perhaps the most effective method of treating metastases from thyroid carcinoma. *Warren H. Cole, M.D. Surgical Lesions of the Thyroid. Texas J. Med. Sept. 1957.*

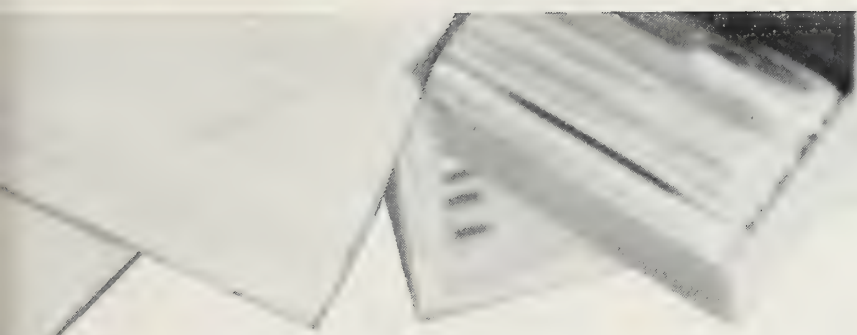
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Aspirin warning statement

"Keep out of the reach of children" — required by the Food and Drug Administration (FDA) formed the basis of a seizure of aspirin in the possession of Dr. Sachs Labs, Chicago. The seizure was FDA's first under its 1955 policy statement suggesting the "keep out of reach" warning for aspirin products (F-D-C Oct. 17, 1955.) The seizure also alleged absence of label warning to consult a physician for use by children under 3. A shipment of oil of wintergreen was seized at the same time because it also failed to bear the strong FDA warning statement v. misuse by children. *F-D Reports, Dec. 16, 1957.*

< >

The object of living is work, experience, happiness. There is joy in work. All that money can do is buy us some one else's work in exchange for our own. There is no happiness except in the realization that we have accomplished something. — Henry Ford



Gastric distress accompanying "predni-steroid" therapy is a definite clinical problem — well documented in a growing body of literature.

"In view of the beneficial responses observed when antacids and bland diets were used concomitantly with prednisone and prednisolone, we feel that these measures could be employed prophylactically to offset any gastrointestinal effects."—Dordick, J. R. *et al.*: *N. Y. State J. Med.* 57:2049 (June) 1957.

*"It is our growing conviction that all patients receiving oral steroids should take each dose after food or with adequate buffering with aluminum or magnesium hydroxide preparations."—Sigler, J. W. and Ensign, D. C.: *J. Kentucky State M. A.* 54:771 (Sept.) 1956.

*"The apparent high incidence of this serious [gastric] side effect in patients receiving prednisone or prednisolone suggests the advisability of routine co-administration of an aluminum hydroxide gel."—Bollet, A. J. and Bunim, J. J.: *J. A. M. A.* 158:459 (June 11) 1955.

One way to make sure that patients receive full benefits of "predni-steroid" therapy plus positive protection against gastric distress is by prescribing CO-DELTRA or CO-HYDELTRA.

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PREDNISONE BUFFERED

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provide all the benefits
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plus positive antacid protection
against gastric distress

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A hidden ulcer

There was also a patient in one of the wards in the hospital, a woman, who came in for her second gastrointestinal hemorrhage. It was severe, as was the first one. The medical man consulted the surgeon who hesitated about operating. The patient was X-rayed. The X-ray was negative. I was asked to gastroscope her and I found only a gastritis. Because she wished it and because the doctor in charge thought it advisable, she was operated upon. At operation, the surgeon opened her stomach, looked everywhere but could find no bleeding area. However, a subtotal resection was done. On that day, it happened that I was making service rounds and so, two hours after the operation, we went to pathology and looked at her stomach which was then fixed in formalin. There, unmistakably was an ulcer about the size of a penny. This makes us wonder how such an ulcer could be missed by the various modes of examination. She, undoubtedly, would have been listed as massive hemorrhage, cause undetermined, except for her operation. *Samuel Morrison, M.D. A Practical Approach to the Treatment and Diagnosis of*

Gastrointestinal Hemorrhage. Maryland M.J. July, 1957.

◀ ▶

High and low fat diets

The Yemenite Jews lived apart from their Arab neighbors and from world Jewry for nearly 2,000 years, speaking Biblical Hebrew and adhering to a diet based on bread, vegetables, and vegetable oils. Settled in Israel, recent immigrants from Yemen adhere to this way of life, and fat (mostly olive oil or seed oils) provides less than 18 per cent of their caloric intake. In men aged 55 to 60 years the blood cholesterol level averages less than 160 mg. per 100 ml.; and the death rate from all arteriosclerotic diseases is below five per 10,000. However, male Yemenites who have lived in Israel and Palestine for 20 years or more have less restricted diets, with 21 per cent of calories derived from fat. They use some dairy products. Their cholesterol levels at the same age average 200 mg. per 100 ml. Deaths due to arteriosclerosis are 33 per 10,000. The European Jewish immigrants have blood cholesterol levels over 240 mg. per 100 ml. and 86 per 10,000 die of arteriosclerosis each year. Their

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diets, cholesterol levels, and death rates are similar to related groups in urban United States communities. *Editorial. Am. J. Clin. Nutrition. Nov.-Dec. 1957.*

< >

Personality problems

There are no rules-of-thumb for the solution of personality problems. In fact, environmental manipulations are rarely satisfactory. Perhaps the greatest service which the family physician can provide in consultation is to help the parent and teacher recognize that they are offended, challenged, or threatened by the child and that they must re-evaluate their own feelings if they are to be of real help to the child in a given problem. Until such time as they have their own emotions under control, the parent and teacher cannot realistically deal with specific problems in the youngster. *William R. Conte, M.D. The Family Doctor in Parent-Teacher Consultation. Rocky Mountain M.J. Sept. 1957.*

< >

The use of money is all the advantage there is in having money. — Benjamin Franklin

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Fat and aortic arteriosclerosis

Although coronary disease and atherosclerosis usually are considered interchangeably, it is increasingly evident that there are distinct processes and associations involved in clinical coronary disease beyond the basic atherosclerotic lesion. Thus, while a relationship exists between fatness and coronary heart disease, no such association obtains for arteriosclerosis in other sites, as in the aorta. The degree of atherosclerotic lesions in the aorta was found to be identical in underweights and overweights in the extensive study of Holman et al. and also in the study of Cinti and de Biase, who observed no differences between obese and nonobese in other arteries as well. Similarly, despite the vastly greater frequency of coronary heart disease in males compared to females, in whites compared to Negroes, and in Americans compared to other nationalities, Holman was able to demonstrate almost no difference in the degree of aortic arteriosclerosis between those of normal weight and moderately or markedly obese persons, or between men and women. *Fatness, Fat, and Coronary Heart Disease. Nutrition Rev. Dec. 1957.*

The laboratory work-up

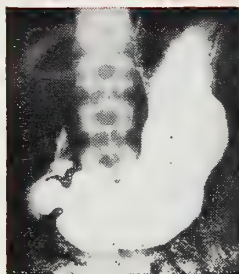
As a group we have been too lackadaisical in ordering laboratory work. While complaining of excessive cost to the patient we have taken refuge in the C.B.C. (complete blood count). Our only rational approach is to order the minimum needed in the average case, hemoglobin or hematocrit, white count, and differential, realizing that the purpose of these studies is not to diagnose an anemia of unknown etiology but to act as a screening device similar to a chest microfilm. When faced with a situation that needs explanation, we must focus all our aids on the patient prior to treatment. In this way a decrease in cost of routine studies will help amortize the study of the diagnostic problem. *Matthew Block, M.D. Importance and Interpretation of Routine Blood Counts. Rocky Mountain M.J. Sept. 1957.*

◀ ▶

I hope that my children, at least, if not I myself, will see the day when ignorance of the primary laws and facts of science will be looked upon as a defect only second to ignorance of the primary laws of religion and morality. — Charles Kingsley

when anxiety and tension "erupts" in the G. I. tract...

IN DUODENAL ULCER



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MY DAD — HE HURT HIS BACK REAL BAD

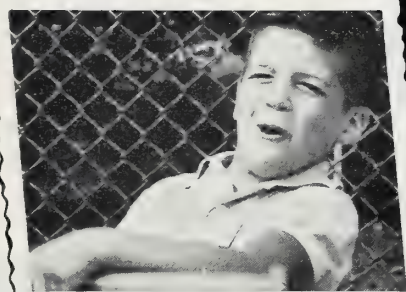
"It happened
at work
while he
was putting
oil in
something"



"He told
Mom his
shoulder
felt like
it was on
fire"



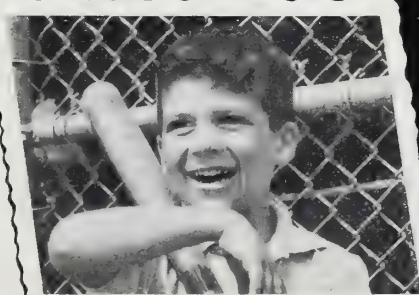
"He couldn't
swing a bat
without
hurting"



"But Doctor
gave him
some nice
pills --and
the pain
went away
fast"



"Dad said
we'd play
ball again
tomorrow
when he
comes home"



AND THE PAIN WENT AWAY FAST

FOR PAIN Percodan® TABLETS

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usually within 5-15 minutes

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usually for 6 hours or more

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A gauge of body fatness

The average adult American population is in fact moderately obese, fat comprising some 20 per cent above lean, fat free, body weight of the average middle-aged male, and 27 per cent among females. Average weight tables for adults of different ages do not reflect weight distribution in the population, for there is a marked skewing of mean from modal weight with advancing age due to the increasing prevalence of obesity. Thus in males of average height, the mean is sensibly the same as modal up to age 20, exceeds it by five pounds between 20 and 40, by 10 pounds between 40 and 50, and by 12 pounds above 50. Although weight tables at best — whether average, modal, or ideal — do not provide a regularly accurate index of adiposity, there are limitations to more direct measurements of fatness, even with such a simplified method of skinfold thickness calipers, since this is not generally available. A simple gauge of body fatness is provided by the index height (in inches) minus abdominal girth (male height with, female height without, shoes). Average adult range is 40 to 30, representing

10 per cent fatness at a numerical index of 40, to 30 per cent fatness at an index of 30. The mean index is the familiar "perfect 36" but this represents 18 per cent fatness and the ideal is 40, or 10 per cent fatness. *Gubner and Ungerleider, Am. J. Med. quoted in Nutrition Rev. Sec. 1957.*

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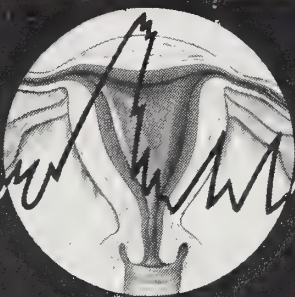
Reactions to drugs

At best, the number of hypersensitivity reactions to be anticipated from most drugs is about 5 per cent. This figure applies to analgesics, narcotics, hormones, and other therapeutic agents. At the worst, drugs which cause a reaction rate near 20 per cent are not popular and are administered only with the most precise of indications. Penicillin gives rise to untoward side effects in less than 5 per cent of the cases, the broader spectrum agents to from 10 to 17 per cent, according to Dr. Eastman. *Editorial. Complications of Antibacterial Agents. New York J. Med. Oct. 1, 1957.*

< . . . >

To add a library to a house is to give that house a soul. — Cicero

in dysmenorrhea



Pavatrine[®] with Phenobarbital
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- *furnishes gentle sedation*


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"Furthermore, the duration of this beneficial action is prolonged sufficiently to make this method of treatment of practical clinical value."

Riseman, J. E. F., Altman, G. E., and Koretsky, S.:
Nitroglycerin and Other Nitrites in the Treatment of
Angina Pectoris, *Circulation* (Jan.) 1958.

* 'Cardilate' brand Erythrol Tetranitrate SUBLINGUAL TABLETS, 15 mg. scored



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Avoid hostility

Of all the emotions, hostility is the most dangerous. It will, in this atom age, probably be the death of us. Hostility raises the blood pressure, pours acid into the stomach — and churns up the stomach walls too, and you know what that leads to —. Hostility produces wheezes in the chest, pours excess sugar into the blood stream and stimulates peristalsis in the lower gut. So overwork, salted with hostility, can really produce a syndrome. No matter what you do with this hostility, you can't win. If you let it express itself, you go pounding on table tops and get hypertension. If you swallow it down, you get ulcers. *Editorial. J. M. Soc. New Jersey, Nov. 1957.*

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SOCIAL SECURITY SAYS: "People are taxed only once for Social Security."

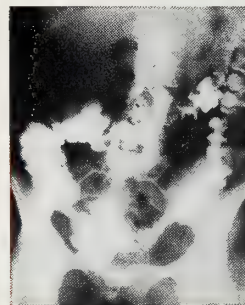
In Other Words: The employer who must pay his share of the social security tax for each of his employees increases the price of his product or service to cover this additional cost of doing business. Everybody pays this increase as a hidden "sales tax."



"No, the doctor isn't in."

when anxiety and tension "erupts" in the G. I. tract...

**in spastic
and irritable colon**



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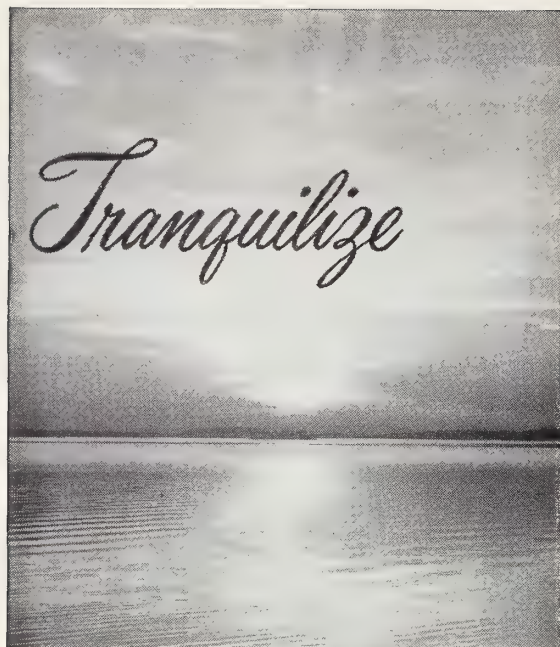
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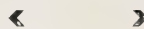
3021 WABASH, DETROIT 16, MICHIGAN



Topical steroid therapy

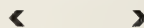
One hundred and thirty-nine dermatological patients were treated with combinations of hydrocortisone and Eurax® (Crotonyl-N-Ethyl-O-Toluidine). The patients were from private practice, and represented some 20 types of dermatological states. Of these 139 patients, 67 (48 per cent) showed "excellent" results; 49 responded in "good" fashion; 17 (12 per cent) exhibited "no essential changes," and the remaining six (five per cent) showed either "flares or reactions under therapy," according to the standards established for the evaluation. Combinations of Eurax® five per cent with hydrocortisone one per cent, Eurax® ten per cent with hydrocortisone one-half per cent, and Eurax® five per cent with hydrocortisone one-half per cent were used. Another group of 30 patients not included in this study, were treated with Eurax® five per cent, and results evaluated similarly.

Comparison of the various combinations of Eurax® and hydrocortisone showed that using one per cent hydrocortisone is more effective than when only one-half per cent is used. Eurax® five per cent alone seems about as effective as those combinations containing one-half per cent hydrocortisone with either concentration of Eurax. *Arthur J. Tronstein, M.D. Clinical Evaluation of a Combination of Hydrocortisone and Crotonyl-N-Ethyl-O-Toluidine (Eurax®) for Topical Therapy. Ohio M.J. Oct. 1957.*



Man and alcohol

Man has always found it necessary to escape from the reality of his environment. From the very beginning he has sought to do this by a variety of chemical means. Every society, no matter how primitive or isolated, has discovered fermentation. One wonders what there is about reality that is so intolerable; 70,000,000 of our people find it necessary to flee from it through the aid of various colors and flavors of alcohol alone. *Herbert Berger, M.D. Treatment of Alcoholism. New York J. Med. Oct. 1, 1957.*

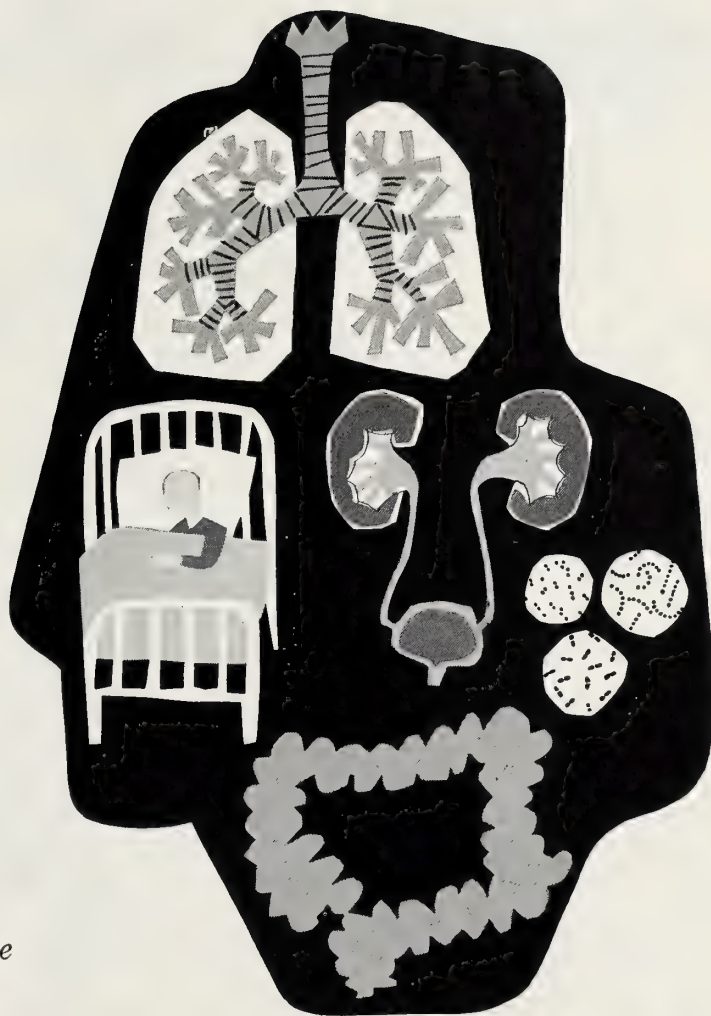


In a nation as rich as ours, in a society so advanced, it is inconceivable that an individual should spend old age deprived of dignity and elemental security. — A Financial Editor

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Amen

In conclusion, I wish to point out that a conscious effort has been made to use common terminology. My sensitivity on this point stems from the fact that I have learned to view psychiatry as "common sense clothed in a language that no one can understand." Like most colleagues, I recognize my frailty in using exotic terms and would welcome an opportunity to clarify any ambiguous or contradictory statements. It is my firm conviction that the solution of the problem of mental illness lies within the medical profession as a whole, with each physician gaining more complete knowledge in regard to etiology, and in gearing our treatment to the whole man as an individual with a right to dignity and complete study. *R. F. Downey, M.D. The Prodromata of Mental Illness. West Virginia M. J. Sept. 1957.*

< >

He who will not apply himself to business, eventually discovers that he means to get his bread by cheating, stealing, or begging, or else is wholly void of reason. — Ischomachus



"If I'd known bringing up a child was so much trouble I'd never have gone to YOUR hospital to have the baby!"

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MENTAL and NERVOUS DISORDERS

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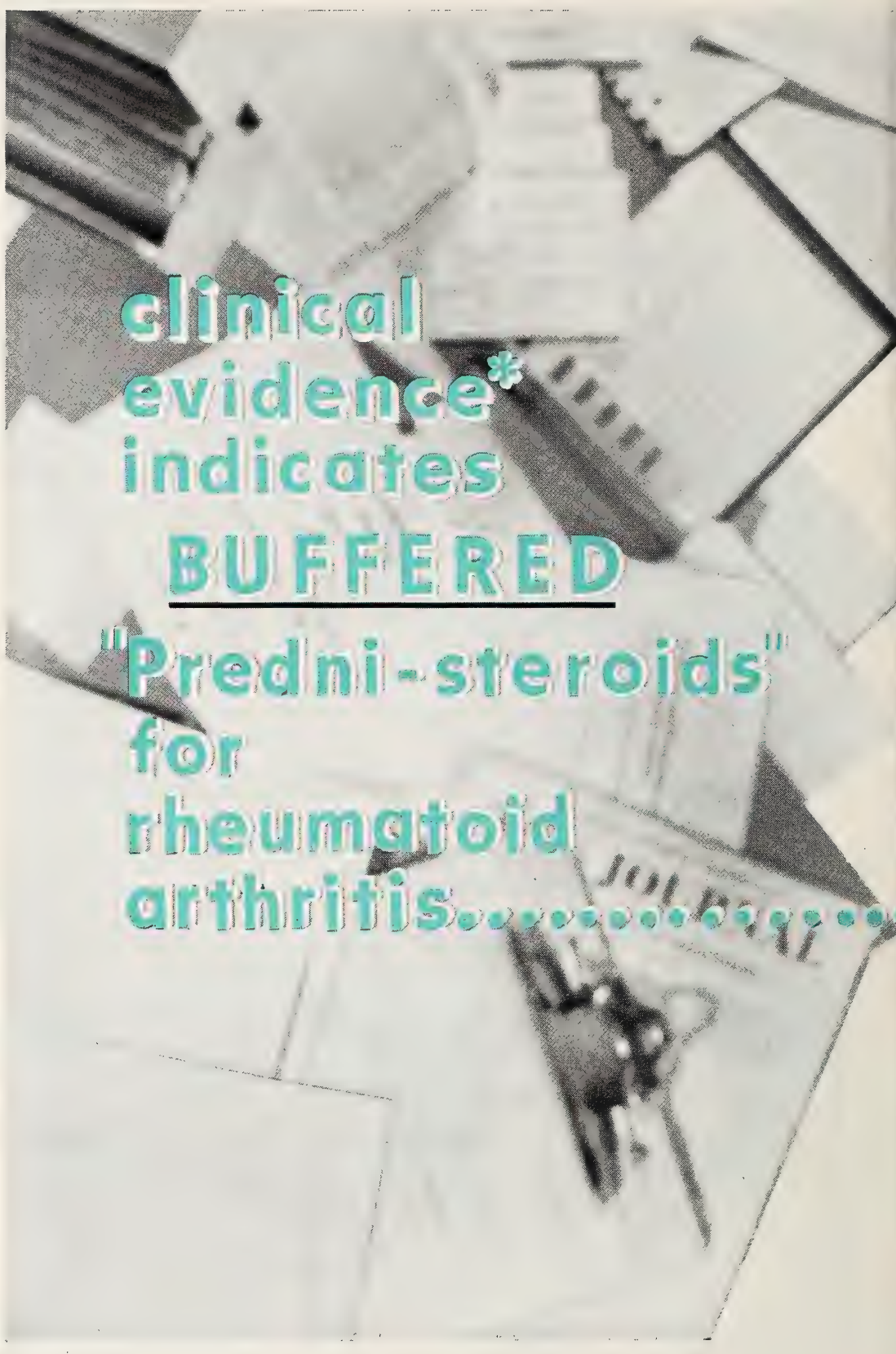
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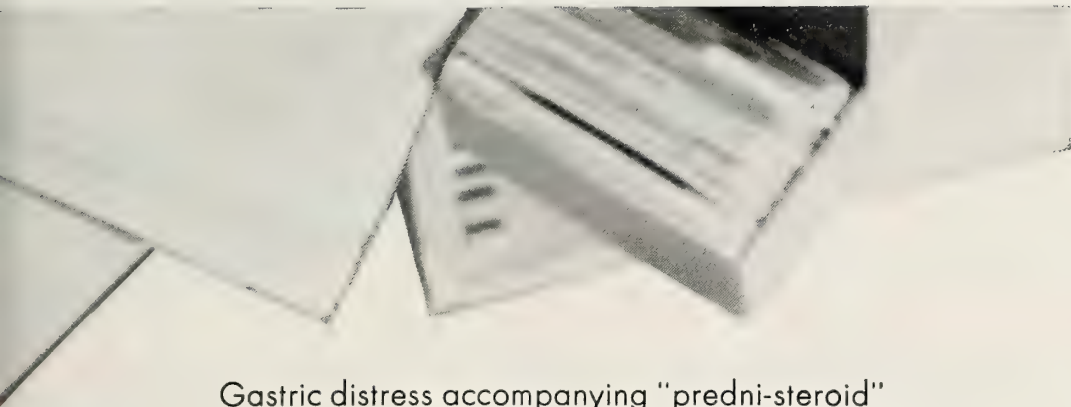
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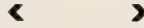
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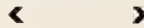
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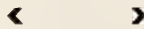
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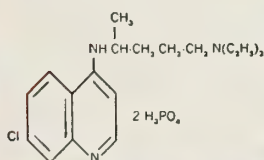
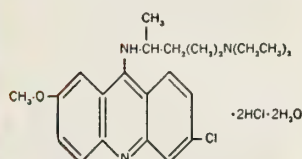
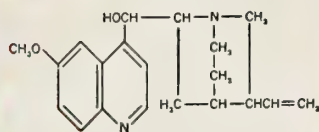
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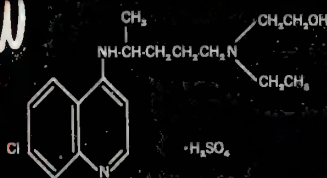
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The Month in Washington



Washington, D.C.—At least for this year, it appears that Congress will keep its hands off tranquilizer drug regulation. The issue was studied by a House Government Operations Subcommittee in three days of hearings, where experts on tranquilizers testified. With few exceptions, they told the subcommittee they thought the situation was well in hand now and that no new legislation was needed.

The investigation grew out of reports that (a) some tranquilizer manufacturers are misleading doctors in literature describing the drugs and in advertisements in medical journals, and (b) somehow the general public is reading these claims and prevailing on doctors to prescribe the drugs when they aren't indicated medically.

A report, when issued by the full committee later in the year, is expected to point out some of the danger areas explored at the hearings, but not to make a strong demand for further federal regulation in this area.

Dr. Leo Bartemeier, chairman of the American Medical Association's Council on Mental Health, told the subcommittee under Rep. John Blatnik (D., Minn.) that he knows of no "gross misrepresentation" of the drugs, and that it is his understanding that the producers subject the drugs to careful tests before releasing them to the medical profession. Dr. Bartemeier explained that the drugs are helpful in bringing mental patients in contact with reality, thus preparing for treatment.

Dr. Robert H. Felix, head of the National Institute of Mental Health, agreed that the tran-

quilizers are "a new source of hope" for patients and psychiatrists alike, but he pointed out that their success actually highlighted the acute shortage of trained psychiatric personnel in public mental hospitals. He said that too many patients, after being made ready for treatment through use of the drugs, have to wait for long periods until overworked psychiatrists can start their treatments.

Two other government witnesses also said no new legislation is needed. They were Dr. Albert H. Holland, Jr., medical director of Food and Drug Administration, and Commissioner Sigurd Anderson of the Federal Trade Commission. They argued that even the most questionable wording does not mislead the wary physician, and that there is no record in 20 years of any drug advertisements sent exclusively to the profession that carried false or misleading claims.

Dr. Nathan Kline, research director for the New York State Department of Mental Hygiene, said there may be occasional abuses or "honest mistakes" but that they are not frequent enough to justify new legislation.

Dr. Kline did suggest that it might be wise to give Food and Drug Administration full authority over policing of advertising. At present FDA is responsible for checking on claims on labels or enclosed literature, and Federal Trade Commission for checking advertisements. The advantage would lie in FDA's authority to move faster against producers in case of abuse.

Among the few who called for new control

(Continued on page 35)

WASHINGTON (Continued)

legislation was Dr. J. Murray Steele, who headed a New York Academy of Medicine study of tranquilizer advertising.

In contrast to evidence from witnesses before the Blatnik subcommittee, Dr. Steele said a number of psychiatrists had told his panel that the ads often serve more to mislead than to guide physicians.

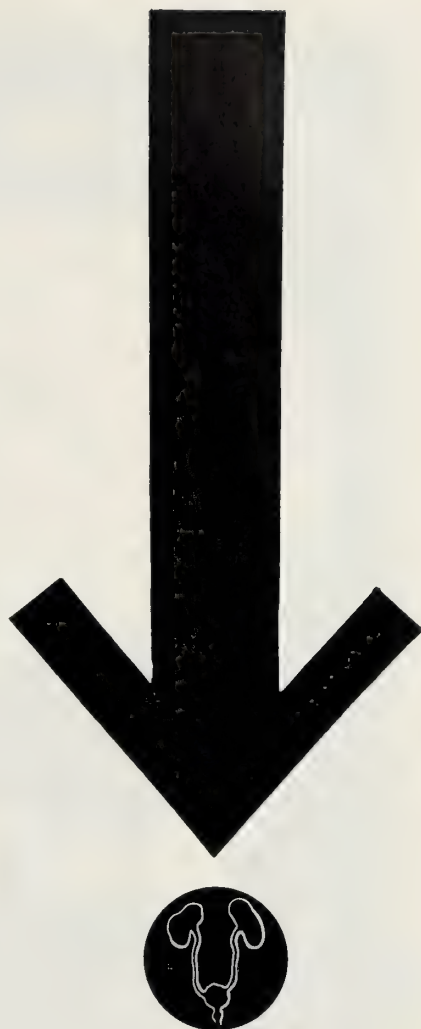
NOTES

A four-day Washington conference of representatives of organizations concerned with nursing homes and homes for the aged agreed on the need for federal legislation to help renovate and build facilities. Left open was the question of whether aid should be through grants or mortgage guarantees. Surgeon General Burney told the group that lack of good nursing homes was keeping "tens of thousands of older patients in general hospitals for prolonged periods beyond the time when they need or even can benefit from 'full-dress' hospital services."

Dr. David B. Allman, AMA president, has warned the country of food faddists and diet quacks. Speaking at the National Food Conference, he said too many people put off seeing a physician while accepting certain health foods, herb mixtures, or "some other phony remedy." AMA and Food and Drug Administration are working on a program on the dangers of food quackery. This includes a television film.

Senator Lister Hill (D., Ala.), chairman of the Senate Appropriations subcommittee that handles the HEW budget, is convinced work should be pushed on the new National Library of Medicine building. Only planning funds have been voted to date. Hill wants the administration to indorse \$7 million for the library in the face of deterioration of the present structure. He cites an editorial in the Journal of the AMA on the need for action.

Dr. F. J. L. Blasingame, AMA general manager, has informed the House and Senate Armed Services committees of AMA support for continuing the 1956 incentive pay act for medical officers. The House group is considering legislation to change the base pay of all military personnel; this would have the effect of cutting down the special pay for experienced medical officers.



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(3) A program to educate the public on the importance of student experiments with animals.

< >

Good advice

If there were less hesitancy about performing elective surgical repair of hernia in elderly persons, fewer emergency herniorrhaphies with possible mechanical complications would eventuate. Thus we could avoid the inherent danger of a probably fatal outcome from the hernia at a later date. *Arkell M. Vaughn, M.D. and Michael S. White, M.D. Herniorrhaphy in the Aged. Postgrad. Med. Oct. 1957.*

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Medical Treatment of Survivors of the Iroquois Fire

J. W. DREYER, M.D., AURORA

On December 30, 1903, I was finishing my first six months of internship at St. Luke's Hospital in Chicago. It was my afternoon off and I had a dinner-date with my fiancée in Elgin, and was planning to take the 4 p.m. interurban. As I was on my way to check out about 3:30, the emergency-room alarm sounded. It was an inviolate rule of the hospital that any intern who was footloose would answer the emergency gong, which I promptly did.

The police brought in a patient badly burned about the head, arms, and hands, more posteriorly than on the face. While I was administering first aid, a dozen more similarly afflicted people were brought in. I summoned all available help, and we were kept busy till late at night. By that time we had learned that these were victims of a fire in the Iroquois Theater.

This disaster occurred during a Christmas vacation matinee, with many children and young people in the audience. The show in the luxurious new Iroquois theater was *Mr. Bluebeard*, starring Eddie Foy. During the performance some draperies that were part of a set ignited, and the whole stage burst forth suddenly in a violent flash of flames. With much personal bravery Eddie Foy attempted to calm the crowd, but panic ensued.

The orchestra, in a pit under the edge of the

stage, escaped through a manhole, after persuading the bass-drummer that he could not take his instrument with him. One member of the group was taking a busman's holiday, seeing the show from the balcony. It was several days before a fellow musician found his body in an undertaking establishment on the south side.

The audience stampeded. The exits were jammed. Smoke filled the building. Many people were crushed, but more were suffocated by the fumes. After the fire was extinguished, the bodies were moved across the street and piled up on the sidewalk like so much cordwood. Two hundred and two were then taken to Wesley Hospital morgue (this hospital also treated two survivors) and 400 to the morgue at St. Luke's Hospital. Six hundred and two people lost their lives. Only 16 required hospitalization after their escape, though no doubt many others sustained minor injuries.

St. Luke's Hospital at that time was on Indiana Avenue, with the morgue in a rear courtyard. By five o'clock after the fire a line had formed from the Indiana Avenue entrance, moving through the passageway; the steady shuffle of hundreds of pairs of feet could be heard on the second floor. The hundreds of bodies, arranged in rows to facilitate identification, was such a gruesome sight I took only one

look. Many features were horribly distorted. Some victims could be identified only by jewelry or other personal belongings; dentists were consulted for several. One body was not claimed for 14 days, but by the end of the third day the line of friends and relatives had dwindled to only a few.

Our first aid in that era consisted of liberal applications of carron oil, a mixture of olive oil and limewater. This treatment is now frowned upon in the practice of medicine, but the application of oil and grease to burns still is a common lay practice. Nearly all the burns of our patients became infected and boric acid packs were applied until the areas cleared up. All the cases required skin grafting after the scars had sloughed off and granulations developed. Two methods were used. In one Thiersch graft—a partial thickness of skin is obtained by shaving the donor area with a sharp razor. The second was the pinch graft, in which wheat-kernel sized particles of whole skin were inserted into punctures made in the raw surface, spaced about an eighth of an inch apart. This method is tedious, not very successful, and has fallen into disuse. Presumably because of emotional reasons, most of the patients had friends or relatives who wished to donate skin. We found that none of these grafts took, but nearly all grafts from patients' own bodies healed. To my knowledge, this was the first mass demonstration of the fact that skin, like blood, is of different types.

One handsome young man, captain of his high-school football team in Davenport, Iowa, was caught in a jam at an exit and thrown prone, with his torso outside the doorway and

his legs in the theater. Both legs were so badly burned that they required amputation. Since he was in severe shock when admitted, it was three days after the fire before the operation could be attempted. Three surgeons worked on each side. Another doctor gave the anesthetic, which was ether, closed method, the only alternative at that time being chloroform. Three other surgeons were watching the patient's pulse and giving needed stimulation. Intravenous transfusions of saline and blood had not been developed but salines were given under the skin. Hypodermic stimulation was strychnine, camphor and caffeine and sedation was morphine. Double amputation was at the hip joints. The patient left the table in critical condition but improved in time. A week after the operation the suture sloughed from the left femoral artery during the night. The young man called his nurse, who applied pressure and summoned an intern, who applied a clamp. After this episode a nurse was kept in constant attendance. The young man made a complete recovery and was reported as the fifth double hip amputee on record.

After the Iroquois fire disaster the City Council passed an ordinance requiring asbestos curtains, a regulation since adopted by all cities in the United States. As surgeons, we learned that the only successful grafts are isografts and the most successful of these was Thiersch, or partial thickness skin grafts. Since 1903, the treatment of burns has been greatly modified, although it is still a debated problem not completely solved. My fiancée learned that medical men do not always keep their social engagements. 172 Calumet Ave.

< < < > > >

The Most Common Accidental Poisonings in Childhood

JOSEPH R. CHRISTIAN, M.D.^{*}, AND RONALD B. MACK, M.D.^{**}, CHICAGO

THE accidental death of a child is a dramatic and tragic result of someone's mistake. This fact is especially true in accidental deaths due to acute poisoning; over 400 a year occur in children under 5.

In a recent survey conducted by the *Poisoning Control Committee of the Illinois Chapter of the American Academy of Pediatrics*, the following substances were found to be the most common causes of accidental poisoning in children:

- 1) Salicylates
- 2) Sedatives
- 3) Bleach and lye
- 4) Petroleum derivatives and turpentine
- 5) Pesticides

Salicylate Intoxication

The most common drug killer is aspirin (and other salicylates). In the present study almost 20% of all poisonings was caused by aspirin — mainly the flavored "baby" type. Toxic reactions to salicylates generally are mild. However, serious poisonings occur frequently. Between 1949-1950 there were 113 deaths in the United States in children under 5.

There are two situations where salicylate intoxication may occur in pediatric practice:

- 1) Accidental ingestion of aspirin or oil of wintergreen.
- 2) Mistaken dosage of salicylate on the part of parents or physicians in the treatment of febrile diseases.

The recommended antipyretic dose of aspirin is one grain per year of age, administered every four hours. Toxic effects are noted after the ingestion of 1.02 grains per pound of body weight. Methyl salicylate is especially dangerous because

of its appetizing odor and because one teaspoon is equivalent to about 60 grains of aspirin. Large doses of salicylates produce a number of abnormalities in metabolism. Of these the two most important are:

1) Disturbances in acid base balance — namely, respiratory alkalosis and metabolic acidosis.

2) Disturbances in blood coagulation.

The biochemical disturbances brought about by salicylate poisoning can be visualized as follows:

In a previously healthy person, the first toxic effect noted is hyperpnea. As a result, CO₂ is blown off in excess; the plasma CO₂ combining power falls and the pH rises, producing respiratory alkalosis. The compensatory mechanisms of the kidneys, liver, and the respiratory system respond rapidly with a change from purely neuro-respiratory mechanism to a generalized metabolic dysfunction. The resulting physiologic response to a pathologic intoxication is metabolic acidosis.

In this phase of salicylate intoxication, because of the excretion of base in an almost free state via the kidneys, as well as an alteration in respiration and the production of ketone bodies by the liver, the pH is markedly reduced but the CO₂ combining power is relatively unchanged. The pH and CO₂ combining power increase and decrease simultaneously in metabolic disturbances but in opposite directions in respiratory disturbances of acid base balance. Therefore, an isolated pH or CO₂ is worthless but the combination is diagnostic.

In both phases, acidosis and alkalosis, hyperpnea is present and cannot be used for diagnosis. The CO₂ combining power is decreased in both phases but the pH changes.

A bleeding tendency has been noted in patients receiving toxic doses of salicylates. This is primarily due to the fact that salicylates exert

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an anti-vitamin K or Dicumarol®-like effect in liver metabolism, so that prothrombin production is impaired. In addition, the level of circulating fibrinogen falls because of faulty liver synthesis.

Treatment

The treatment of salicylate intoxication varies according to the time that elapses between ingestion of the drug and active treatment. If the patient is seen within a few hours, the stomach should be thoroughly lavaged with a hypotonic saline solution. Milk should not be used because it may increase absorption or accelerate gastric evacuation. Large quantities of water, essentially an electrolyte-free solution, may increase the biochemical deficit by causing sodium, chloride, and potassium to be removed from the stomach. Using sodium bicarbonate as a lavage in the early phases is dangerous because it enhances absorption of the drug and increases alkalosis. The time for conversion of respiratory alkalosis to metabolic acidosis varies from one to six hours and is inversely proportional to the amount of drug taken. Up to six to eight hours after ingestion of the salicylate, the initial solution to be administered intravenously should consist of equal parts of 5% glucose in water and isotonic saline, given at a rate of 4-5 cc. per kilogram of body weight per hour. In the respiratory alkalosis phase, calcium gluconate is added to the intravenous infusion, 0.5 cc. per kilogram, to prevent tetany due to decreased ionized blood calcium.

Oxygen should be given when salicylism is severe, to combat tissue anoxia as well as hyperpyrexia. To prevent hemorrhage, synthetic vitamin K should be given; one mg. will counteract the effect of 1 gram of salicylate. Blood transfusions or plasma may be necessary. Barbiturates, paraldehyde, and morphine, should not be used as they potentiate the toxic effects of the salicylates.

The intravenous infusion to be given six to eight hours after ingestion of salicylates should consist of 1 part 1/6 molar sodium lactate, 2 parts isotonic saline, and 3 parts 5 per cent dextrose in water; or polyionic solution in a dose of 2,400 cc. per square meter of body surface area. Intravenous fluids can be given only if the urinary output is adequate. Oliguria frequently is reported in salicylism and may be due to dehydration. If renal function is severely depressed,

the artificial kidney may be life-saving. Additional measures are vitamin C in large doses and/or adrenal cortical extract. Antibiotics will help prevent secondary infection. Exchange transfusion or peritoneal dialysis can be used in severe cases and reports can be found in the literature of its success, particularly with methyl salicylate poisoning.

Sedative Intoxication

Barbiturates are the second most common drug killers. In the present study they accounted for 7% of all poisoning. It has been said that the "nervous age" we live in has converted every family medicine chest into a small barbiturate warehouse. Doses five to six times the average hypnotic dose are toxic.

Treatment consists of lavage, oxygen, and analeptics. Lavage is to be done on all patients except those in coma. Milk should not be used for lavage purposes as it increases absorption. Hypotonic saline or potassium permanganate 1:5,000 solution are effective lavage fluids. From 500-1,000 cc. of fluid should be lavaged. Before the tube is withdrawn, the universal antidote should be left in the stomach. It consists of 2 parts pulverized charcoal, 1 part magnesium oxide, and 1 part tannic acid given in a dosage of 4 cc. in 1/2 glass of water. This antidote ought to be given in all cases where the nature of the poison is unknown.

Caffeine, ephedrine, or Coramine® may be of value. But picrotoxin is thought by many to be the analeptic of choice; a safe dosage schedule is to give 3-6 mg. intramuscularly every 30 minutes until corneal reflex or twitching occurs. The drug is given to avoid further respiratory failure and to lessen the depth of coma. In severely comatose patients, it can be employed intravenously in a dose of 0.2 mg. per kilogram every 15 minutes until muscular twitching occurs. Intravenous glucose and saline are administered to promote excretion of the drug and to support the liver.

As in all comatose patients, make sure an adequate airway is present. Then give oxygen in sufficient quantities by intratracheal intubation if necessary. It is imperative to prevent hypoxia, which depresses metabolism. The analeptics should be given cautiously; if they induce convulsions, cerebral hypoxia is increased. Hypoxia intensifies circulatory failure and causes depres-

sion of the central nervous system. Use of the Drinker respirator and Levophed® may be necessary; also, tracheotomy is helpful in many cases. In some cases, serum albumin 2 cc. per kilogram with a maximum of 60-80 cc. will prove helpful in decreasing cerebral edema. In severe cases, exchange transfusion or peritoneal dialysis may be of great aid and antibiotics should be given against secondary infections.

Recent reports suggest the usefulness of a drug known as B-B-methyl-ethyl glutareimide [NP 13 or bemegride or megemide] for barbiturate poisoning. The mechanism of action is still unknown but the drug may inhibit the combining of barbituric acid with cellular enzymes of the nervous system and with enzymes elsewhere in the body. It is hoped that this drug will prove to be as useful in this type of intoxication as Nalline® is against the opiates.

Bleach and Lye Ingestion

Most household bleaches are composed of hypochlorite solution or oxalic acid. If hypochlorite is at fault, lavage should be instituted immediately and a demulcent drink, such as olive oil or a thin flour paste and the universal antidote are given, along with general supportive measures.

Oxalic acid poisoning can be treated by lavage with potassium permanganate solution 1:5,000, followed by a 5% calcium chloride, chalk, or lime solution with large quantities of water. Lavage only if oral or esophageal erosion is slight or absent. If erosions are present, give 5-10 cc. of 10% calcium gluconate intravenously to prevent tetany. Symptomatic and supportive therapy should be given as needed to prevent collapse.

Lye poisoning is one of the most important causes of accidental morbidity in children because residual esophageal strictures ensue. Do not use gastric lavage or emetics. Diluted vinegar or lemon or orange juice should be given immediately, followed immediately by several ounces of olive oil or thin flour paste.

All patients, irrespective of the initial severity of symptoms or findings, should have otolaryngology follow-up. In some centers cortisone 25 mg. every 6-8 hours, combined with broad spectrum antibiotics have proved successful if given within the first 24-48 hours. These drugs in combination may help lessen or prevent edema and scar formation. The exact time at which bougie-

nage is safe and effective has been debated but the tendency seems to be toward earlier introduction of the bougie.

The Petroleum Derivatives and Turpentine

This group includes fuel oil, kerosene, benzene, furniture polish, floor polish, and turpentine. These poisonings will be discussed together because of similar treatment and common clinical pictures and complications. The most important principle in their treatment is the prevention of pneumonia due to aspiration. There are controversial opinions as to whether mucosal absorption via the gastrointestinal tract and secondary pulmonary involvement can occur or whether aspiration with direct contact is necessary for the production of pneumonitis.

Also, there is disagreement as to whether lavage increases or decreases the likelihood of aspiration pneumonia. Lavage, if done properly, is an essential maneuver. The head should be lower than the rest of the body, the child mummified, and a mouth gag inserted so that a large bore tube can be passed into the stomach. The stomach is lavaged with two ounces of mineral oil and one ounce should be left in the stomach. The lavage tube should be pinched off before being withdrawn.

Caffeine sodium benzoate in a dosage of 0.5 cc. is given in all cases of drowsiness or depression. When respiration is labored, the child is given 0.5 cc. of Coramine and put into an oxygen tent. An antibiotic should always be given to help prevent secondary bacterial invasion or a chemical pneumonitis. If cyanosis due to methemoglobin develops, blood transfusions can be given as well as methylene blue, administered intravenously 0.5 — 1 mg. per pound. Intravenous fluids, especially glucose, are needed to support the liver and myocardium. If excitement is marked, barbiturates are indicated.

The Pesticides

This group includes rodenticides and insecticides. The rodenticides include several extremely toxic substances such as arsenic, thallium, phosphorus, and strychnine. Also, a number of newer compounds like Warfarin®, Pival®, and ANTU® are considerably less toxic to humans under ordinary circumstances.

Treatment of these types of poisoning is:

A. If arsenic is the toxic agent, cleanse the gastrointestinal tract by lavage or the use of

emetics. The specific antidote is BAL, injected intramuscularly in a dose of 2.5-3 mg. per kilogram, every four hours. Polyionic intravenous fluids are needed to combat dehydration.

B. For thallium poisoning, lavage the stomach with 1% sodium or potassium iodide or sodium thiosulfate. Daily intravenous injections of 20 cc. of a 3% aqueous solution of sodium thiosulfate are helpful. BAL is now thought to be ineffective.

C. Acute phosphorus poisoning should be treated by lavaging the stomach with large amounts of water containing chemical antidotes such as 0.2% copper sulfate, potassium permanganate, or activated charcoal. Avoid all vegetable oils, fats, milk, or eggs as they increase absorption of phosphorus. Blood transfusions and an infusion of 10% glucose are indicated for treating shock and for preventing liver damage, respectively. Vitamin K should be given to increase the prothrombin level.

D. Strychnine poisoning is a leading cause of death in this country because this chemical is used in certain cathartic pills that frequently are mistaken for candy. The convulsions that ensue should first be treated with intravenous or rectal administration of one of the barbiturates before lavage is undertaken. After convulsions are controlled, lavage the stomach with potassium permanganate or tannic acid solution. Activated charcoal should be given by mouth.

E. Warfarin® and Pival® have slight toxicity when single large doses are taken. Chronic poisoning causes a decrease in blood coagulability because of its Dicumarol-like effect. Vitamin K and blood transfusions are indicated.

F. ANTU and red squill are comparatively safe substances because of certain characteristics that make them more selectively toxic for rodents than for other mammals, including humans. Lavage and administration of the universal antidote are indicated. Extremely large doses of red squill result in a picture similar to digitalis intoxication and the same treatment is indicated.

The Insecticides

The insecticides are composed of a host of toxic substances either alone or in combination. The more popular varieties are the chlorinated hydrocarbons of which DDT®, Lindane®, and Chlordane® are examples; the inorganic chemi-

cals such as arsenic, fluoride, or thallium; and the organic phosphate types: Parathion® and OMPA.® Various others contain cyanides, nicotine, pyrethrum, rotenone. Except for the heavy metals and the organic phosphate types, the treatment is lavage, supportive care, and barbiturates to control convulsions. There are no specific antidotes for these substances.

The newer insecticides such as Parathion and OMPA are treated by atropine injections until the patient is fully atropinized.

In general, fats and oils should not be used as lavage fluids in treating insecticide poisoning as they tend to increase absorption. Transfusions, intravenous fluids, oxygen, and respiratory stimulants are the main supportive measures.

Lead Poisoning

Total infant mortality from plumbism is as high as 30%, increasing to 65% when encephalopathy is a complication. Lead poisoning should be considered whenever symptoms attributable to the nervous system suggests encephalitis of obscure origin. Vomiting, constipation, abdominal pain, weight loss, lethargy, and convulsions would suggest lead poisoning, if these symptoms cannot be otherwise explained, especially when accompanied by encephalitic symptoms that cannot be classified. One consistent fact in the history of patients with lead intoxication is the presence of pica, the abnormal or perverted habit of eating inedible substances.

Aids to diagnosing lead poisoning are: 1) X-Ray of long bones, showing an increased density at the growing ends of the shafts; 2) basophilic stippling of red blood cells; 3) anemia; 4) the presence of urinary coproporphyrins; 5) elevated blood or urinary lead levels; 6) and a sterile pleocytosis in the spinal fluid.

Treatment has changed considerably in the past few years. The drug of choice is calcium versenate — the neutral disodium salt of ethylenediamine tetraacetic acid [EDTA]. Due to the greater affinity of versenate for lead ions, calcium is replaced by lead in the chelate ring, and the resulting lead EDTA is rapidly excreted by the kidneys. The blood level of lead thus rises to heights never before found in surviving patients. Yet, even at these high levels, the patient is improving because the lead complex is relatively nontoxic.

EDTA can be administered orally or intra-

venously, depending on the severity of the case. The oral dosage is 250 mg., q.i.d. for every 35 pounds of the child's weight. The intravenous dosage is 1 gram per 15 kilograms of body weight per day, given in two doses. Each dose is given in 20 cc. of a 5% dextrose solution over a period of two hours. Generally the drug is given for five days with a three to five day rest period and then a resumption for another five days if needed. Blood transfusions are given to correct the anemia. A child who has recently been treated for lead poisoning should be re-treated if he develops an infection, because during infections lead is transferred from the skeleton to the soft tissues. It is a reasonable conclusion, based on many case reports in the literature, that calcium versenate is the agent of choice in the treatment of lead poisoning.

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The Effect of Cobalt-Iron Therapy on the Blood Picture in Premature Infants

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THE newborn infant is subject to a characteristic decrease in hemoglobin and red cell levels during the early part of the first year of life. This is sometimes called "physiologic anemia" and its accentuation in the premature is called the "anemia of prematurity." An early phase of this anemia may occur within the first month or two of life and it has been suggested that this is due to failure of the bone marrow to assume full erythropoietic activity. The development of iron deficiency anemia does not occur usually until the 4th to 6th month of life when the infant's reserve iron is exhausted and the diet fails to provide a sufficient increment. Rapid growth in the premature exaggerates the iron deficiency.

It has been demonstrated repeatedly¹⁻³ that the prophylactic administration of iron is of little value during the early months of life. This has been ascribed to the low level of erythropoiesis in the infant during this period⁵ and recent work seems to confirm this assumption.⁶

Cobalt has been shown to stimulate erythropoiesis.^{4,6,7,8} Since erythropoietic activity appears to control iron absorption and utilization,⁵ it is conceivable that a combination of cobalt and iron could not only aid in preventing the early phase of the anemia of infancy but could decrease the incidence of subsequent iron deficiency. The same situation applies in the case of the premature infant but anemia is a somewhat greater problem than in the full term infant.

These facts led to earlier investigations concerning the effectiveness of cobalt-iron therapy as a routine prophylactic measure in premature infants. Quilligan¹ and Coles and James² studied the effectiveness of this combined medication, and both concluded that its use prevented the

subsequent development of iron deficiency in practically every case treated. Neither of these studies, however, included a control group receiving iron alone.

In other investigations^{1,2}, the dosage of cobalt administered was relatively large and amounted to as much as 20 mg. of elemental cobalt chloride per kg. in some cases. This is many times the dosage used in adults where less than 1 mg./kg. is the common dosage and intolerance and toxic symptoms have been reported at dosages above approximately 2 mg./kg.

In recent months several articles^{10,12,13} have appeared in the literature ascribing a goitrogenic action to cobalt chloride, although other investigations indicate it possesses no antithyroid action.^{11,15,16} Because of possible toxicity and intolerance, it appeared desirable to us to determine whether cobalt-iron therapy might be used advantageously in infants in the same relatively lower dosages administered to adults. It was our feeling that, if effective, problems of toxicity and of tolerance might be reduced or even eliminated. The use of this therapy for routine prophylactic purposes doubtless is much more acceptable in view of the recent discovery that cobalt exerts its hemopoietic activity through the newly discovered erythropoietic hormone, erythropoietin, rather than by an anoxic mechanism.⁹

MATERIAL AND METHODS

Forty-four infants were treated in the premature unit of the Lewis Memorial Maternity Hospital. They were divided into three groups in the order of their admission to the clinic. Patients in group 1 (16) received cobalt-iron therapy; those in group 2 (12) received ferrous sulfate; and the third group (16) received no iron preparation. The numbers shown represent in-

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infants in whom it was possible to obtain hematologic data over the full six month period.

The dosage of cobalt and iron was adjusted so that each patient received 2 mg./kg./day of cobalt chloride* and 75 mg. of ferrous sulfate. This was done by increasing the dosage of the cobalt chloride solution as the infant gained in weight. Both medicaments were given as liquid preparations administered directly by a medicine dropper. The group receiving ferrous sulfate received 75 mg./day of this substance similarly administered.

Treatment was continued for six months in each patient and hematologic determinations were made at monthly intervals. Hemoglobin values were determined by photoelectric means and red cell counts and hematocrit determinations by standard laboratory methods. Patients were weighed and examined at each visit. Careful attention was paid to the status of the thyroid gland in all infants.

RESULTS

The results of the hemoglobin determinations are shown in Table 1. It will be noted that differences in the group treated with iron and in those receiving no medication are insignificant. Not only is the mean value almost identical throughout but the range of values among the individual patients is closely comparable. These findings are in accord with those of others^{1,2} who have found supplemental iron administration to be of little value in terms of hemoglobin levels. The fact, however, that iron administration reduces the iron deficiency state is shown by a calculation of M.C.H.C. values. At the two month interval the average M.C.H.C. for the infants receiving iron was 31.6 while in the unmedicated group the average was 30.4. At the end of six months the values were 28.5 and 26.4, respectively. It is obvious that this cell index shows relatively less iron deficiency in the treated group.

The mean values obtained with cobalt-iron treatment were above those seen in the other two groups. The difference became evident at the two month period when the cobalt-iron treated group exceeded the other by more than 1 gm./100 cc. of hemoglobin and remained near this level for

Table 1
Hematologic Response to Cobalt-Iron and Ferrous Sulfate Therapy in Premature Infants

Period of Treatment	Therapy	Hemoglobin (Gm./100 cc.)	
		Mean	Range
Birth	Cobalt-Iron	20.2	17.5-22.0
	Ferrous Sulfate	18.8	17.0-22.0
	Controls	18.2	16.2-20.2
1 Month	Cobalt-Iron	13.8	12.4-14.2
	Ferrous Sulfate	12.7	10.8-15.2
	Controls	13.0	11.2-14.4
2 Months	Cobalt-Iron	12.0	9.8-12.7
	Ferrous Sulfate	10.6	9.7-12.1
	Controls	10.7	9.8-11.8
4 Months	Cobalt-Iron	11.4	9.2-11.9
	Ferrous Sulfate	10.3	8.4-11.5
	Controls	10.8	9.5-11.3
6 Months	Cobalt-Iron	12.5	11.3-13.2
	Ferrous Sulfate	11.6	10.2-13.4
	Controls	11.4	10.5-12.1

the remainder of the period of study. At the two month interval, 15 of the cobalt-iron treated patients met or exceeded the mean value of the infants in either of the other groups and this figure was identical after six months, at the conclusion of the study. It should be pointed out that infants in the cobalt-iron treated group began life with slightly higher hemoglobin levels but this is probably not significant because of dilution factors and other relatively abnormal circumstances at the time of birth.

No toxic symptoms, intolerance, thyroid abnormality, or other untoward effects were seen in our patients during the period of study. M.C.H.C. values for the cobalt-iron treated group were equivalent to those receiving iron alone although hemoglobin levels were higher in the group receiving cobalt. The erythropoiesis, therefore, did not result in an increased degree of iron deficiency.

DISCUSSION

Although the results of this study cannot be considered as conclusive evidence, our findings closely parallel those of Quilligan¹ during the first two months under the influence of cobalt-iron therapy. The expected decrease in hemoglobin levels during this period does not seem to proceed to so low a level as in "control" infants. Our findings also agree with those of Coles and James² and Quilligan¹ in that the hemo-

*Clinical supplies used in this study were obtained through the courtesy of Lloyd Brothers, Inc., Cincinnati, Ohio.

globin levels at the six month period indicate a relatively lesser degree of iron deficiency.

It would appear from this study that cobalt-iron treatment is a useful prophylactic measure in the prevention of both the early anemia of infancy and the subsequent development of the iron deficiency state. Based on the results of our study, it would appear that the dosage of cobalt chloride used in adult therapy is fully effective in infants. This should permit the use of dosages much below those commonly used at present with a resulting increase in tolerance and the possible avoidance of toxicity.

SUMMARY

We have evaluated the effect of reduced cobalt chloride dosage, given with iron, in a group of premature infants. Our findings indicate that the combination is effective as a prophylactic measure in preventing the anemia of infancy and that sharply reduced dosages of 2 mg./kg. body weight are effective.

Supplemental iron administration was found to have little value during the first six months of life.

Neither side effects, intolerance, nor toxicity were observed during the period of our study at the dosage used.

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assistance in accumulating data and conducting follow-up clinic visits on the patients in this study.

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Vitamin B₁₂ absorption

At the present time, we are not certain how D-sorbitol aids the absorption of vitamin B₁₂ from the gastrointestinal tract. The enhancing effect may be physiologic or it may be the result of a chemical reaction between vitamin B₁₂ and D-sorbitol.

Regardless of the mechanism, the finding that a simple chemical substance, not derived from the usual animal sources of intrinsic factor, can increase vitamin B₁₂ absorption is of academic

interest and practical importance. The observation suggests a new line of research into the mechanisms of vitamin B₁₂ absorption and deficiency disorders. It also suggests further study which may lead to a means for improving vitamin B₁₂ therapy for pregnant, convalescent, geriatric, and other patients who may have a mild state of vitamin B₁₂ deficiency. *Bacon F. Chow, Ph.D.; Paul Meier, Ph.D.; and Spencer M. Free, Jr., Ph.D. Absorption of Vitamin B₁₂ Enhanced by D-Sorbitol. Am. J. Clin. Nutrition Jan.-Feb. 1958.*

Atomic Energy and the Eye

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THE advent of the atomic age poses many new and difficult problems to the practicing ophthalmologist. Both the atomic bomb and the ever-increasing utilization of nuclear energy in the production of useful power make it mandatory that we become familiar with their frequently disastrous side effects. I shall merely outline the major hazards and emphasize certain of the less well known effects of atomic energy.

Let us first consider the ocular damage caused by the instantaneous liberation of massive amounts of energy by an atomic detonation. For our purposes these may be divided into mechanical energy, thermal radiation, and ionizing radiation. The immediate direct and indirect blast injuries will not differ markedly from eye lesions encountered in peacetime industrial explosions and other accidents. They will consist largely of penetrating foreign bodies and lacerations. The eye wounds caused by direct mechanical trauma will be confined to a relatively small area around the hypocenter of the bomb detonation point whereas both thermal and ionizing radiations can cause ocular damage at far greater distances from ground zero.

Thermal energy in the form of visible light and infra-red has the ability to cause rather severe burns of the retina and choroid under appropriate conditions. I am certain that you are all aware of the so-called eclipse burns of the macula which occur after viewing solar eclipses without adequate eye protection. It is this same form of energy which causes the chorioretinal burns following exposure to the atomic fireball. If we consider that the flash of even a nominal atomic device is more than 100 times the brightness of the sun, and that this energy is delivered almost instantaneously, the hazard becomes very real. The blink reflex is not fast enough to afford protection. Chorioretinal burns, with a single possible exception, were not found

following the Hiroshima and Nagasaki atomic explosions. This may be explained by the fact that those bombs were detonated in full daylight in the presence of the rather small light adapted pupil. The night time pupil, which has a relatively pupillary opening many times greater than the light adapted daytime pupil, is obviously far more likely to receive such a burn.

In 1953 we transported 750 pigmented rabbits to the Nevada Proving Grounds and exposed their unprotected eyes to the flash of six different atomic devices. The rabbits were placed in restraining boxes which directed their eyes toward each of the night time detonations, and since we could not be with them at the time of explosion, alarm clocks were set to awaken them five minutes prior to zero time. Retinal burns were produced at each of the following distances from ground zero: 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 27, 28, and 42.5 miles. The latter distance was found to be very close to the threshold point for chorioretinal burns caused by these relatively small atomic bombs.

Typically, the fresh lesion in the pigmented rabbit eye is round, sharply demarcated, and made up of a central and a peripheral zone. In animals exposed near the fireball (within about eight miles) the lesion consists of a deep central hole which actually penetrates through the retina and choroid and partially into the sclera. Elevated, volcano-like margins border this area which in turn is surrounded by a halo of coagulated retina. Hemorrhages often were seen exuding from the central hole. Lesions produced at greater distances from the fireball no longer displayed the characteristic central hole but appeared as a coagulated whitish plaque, the surrounding halo diminishing in size with increasing distance. On histopathologic study these lesions showed just what one might expect. The choroid and retina literally exploded due to local heating of the tissues above the boiling point. At close in distances even the sclera was seen to be partially coagulated.

Presented before the Section on Eye, Ear, Nose and Throat, 117th Annual Meeting, Illinois State Medical Society, Chicago, May 22, 1957.

Since the time of these animal experiments we have examined and reported six human cases of chorioretinal burns produced by accidental viewing of atomic fireballs. One case was that of a super-curious officer stationed in a trench two miles from ground zero in Nevada. It seems that he had never observed the detonation of an atomic bomb so he stood up in the trench and, after carefully (and wisely) covering one eye, watched the bomb go off. He saw a beautiful and terrifying sight, a photograph of which was permanently inscribed on his retina. On funduscopy one can see the inverted image of the early fireball in the macula with relatively bare sclera in the center and radiating tension lines extending out from the lesion toward the periphery of the retina. Six weeks later he had a visual acuity of 20/100 in that eye which had been 20/20 before the accident and a permanent central scotoma corresponding to the shape of the lesion. It is possible that he will develop a retinal detachment in the future.

I may also add that last year we took a large number of rabbits and monkeys to the Pacific Proving Grounds at Bikini and exposed them to several hydrogen bombs. I am not at liberty to describe the results but suffice it to say, they developed burns.

I would like to mention briefly the more insidious effects of ionizing radiation, resulting in the characteristic radiation cataract. In the event of either an atomic disaster or an industrial accident involving exposure to ionizing radiation, varying degrees of ocular damage may result, depending upon the amount of radiation received.

What dose levels of ionizing radiation are capable of causing ocular damage in man? The problem is complicated by the fact that in most cases the human exposures have been in the form of repeated small doses and the radiation dosimetry inadequate — largely guesstimates. The best available figures suggest that the cataractogenic dose for man following single doses of x -radiation lies between 600 and 1400 r. The threshold dose for acute exposures to fast neutrons is somewhat less than 150 rep. and may be as low as 15-20. It seems quite certain that beta rays can cause lens damage in man after doses of about 200 rep.

In an effort to further clarify the cataracto-

genic threshold dose for man, a large long range experimental program was initiated at the U.S. Air Force School of Aviation Medicine under the direction of Col. John Pickering. The rhesus monkey was chosen as the experimental animal since he has several advantages over the usual smaller laboratory animals. These include a relatively long life span (over 20 years), similarity of lens structure to that of man, and the apparent rarity of spontaneously occurring cataract which plagues the investigators employing mice, rats, and rabbits. The program began in 1952 and involved both repeated small doses of whole body irradiation and acute single exposures delivered to the head. Several hundred young adult male rhesus monkeys were employed and each animal has been examined monthly by means of the slitlamp biomicroscope and the ophthalmoscope.

In discussing the results, we may dispense with the chronic radiation experiments, by stating that a gamma-neutron mixture in a ratio of 30 to 1 delivered once weekly over a three month period has resulted in no clinically visible lens changes four and one-half years after total doses as large as 500 rep. In other more complex experiments, which I will not describe in detail, 600 rep. of mixed neutron-gamma irradiation have not resulted in lens opacities three years after exposure.

The experiments employing acute single exposures delivered to the head have been more fruitful. (Figure 1.) Cobalt 60 gamma radiation was delivered to one eye of each animal at a rate of 1,000 r/hour in the doses listed. The two Fast Neutron experiments used 14 mev neutrons from the Cockroft-Walton accelerator at Los Alamos, delivered at 800 rep/hour. The source of the thermal neutrons was the omega water boiler reactor, also at Los Alamos.

The column indicating the present degree of lens opacities is graded from 0 to 4 plus, the latter signifying a mature radiation cataract. A 3 plus lesion interferes with vision whereas a 2 plus may or may not significantly handicap sight. The 1 plus changes are visible with the ophthalmoscope but probably would not be noticed by the individual thus afflicted. The majority of these lesions have been relatively static for several months and probably may be considered arrested. Our program is still active and

RADIATION EFFECTS ON THE MONKEY LENS

Radiation & date	Dose (rep)	First lens opacities (months)	Present degree of opacities	Years post-irradiation (1 April 1957)
Cobalt 60 gamma Apr. '54	3,000 2,000 1,000 500 250	8 9 10	+ + + + + + + + + + ±	3 years
Fast neutrons (A) 14 mev Jan. '53	250 75 21 6 17 .7	14 19	+ + +	4 1/4 years
Fast neutrons (B) 14 mev Nov. '53	850 250 75	6 12 14	+ + + + + + +	3 1/2 years
Thermal neutrons July '53	7,500 2,500 825	* 9 15	+ + + + + + +	3 3/4 years

*Died in 16 days

Figure 1

the animals will continue to be examined regularly to observe possible further progression of the lesions.

The data at *this* time suggest that the cataractogenic thresholds for the monkey are approximately 75 rep of fast neutrons, less than 825 rep of thermal neutrons, and about 500 rep of cobalt 60 gamma radiation. The lesions at the latter dose are not visible with the ophthalmoscope and undoubtedly would not interfere with vision.

Having determined the threshold dose levels, let us examine the early changes visible within the eye shortly after rather large doses of acute radiation exposure which may possibly be useful in predicting the aftermath. I believe that the animals receiving 850 rep of fast neutrons to the head showed the entire spectrum of possible ocular responses. Doses lower than this were either subthreshold for any given effect or caused a similar response but of lesser severity, longer latent period, and shorter duration.

The earliest manifestation was a mild transient reddening of the irradiated skin and eye, apparent within 10 to 15 minutes. Twenty to 30 minutes following irradiation, free blood cells became visible in the anterior chamber and later in the vitreous cavity. Shortly thereafter moderate retinal edema and papilledema were

noted, but this also was transient. Epilation of the eyelashes, eyebrows, and facial hair began 14 days after irradiation and reached a maximum at about one month. Simultaneously, a proliferation of the conjunctival pigment surrounding the cornea was noted which migrated relentlessly from the outer corneal margins until it covered 4/5 of the cornea. Over a period of several weeks, this pigment sloughed off, making the animals look as though they were wearing mascara. Massive loss of skin from the face and brow was observed shortly after epilation began. It was surprising that these raw weeping lesions healed several months later without any intercurrent infection whatsoever. Each of the above findings was found to be dose dependent. The lower doses in each experiment displayed none of these phenomena.

When all the acute manifestations had quieted down, the lens itself began to show changes. The earliest clinically visible alteration in the monkey lens was seen as 40 or 50 tiny white scattered opacities under the posterior capsule. These were discernible only with the slitlamp biomicroscope and could not be seen with the ophthalmoscope. Actually these opacities were as small as a blood cell, about 7-14 micra in diameter. These individual opacities then become more numerous and coalesced to

Cellular Reaction in the Eye after Fast Neutron Irradiation

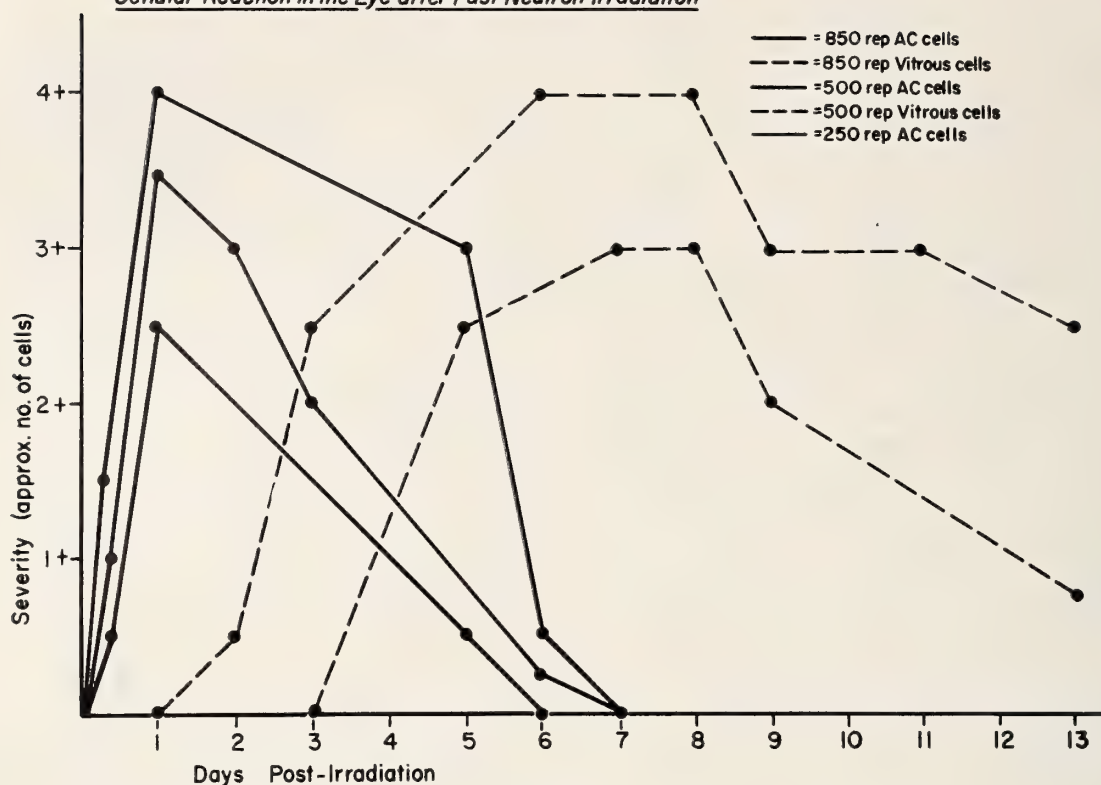


Figure 2

form a dense plaque beneath the axis of the posterior lens pole which then spread laterally. The anterior pole of the lens underwent similar but less rapid opacification after the posterior lesion had become fairly well demarcated. The main central portion of the lens — its cortex — does not begin to show changes after irradiation until the entire circumference of the lens has become totally involved. This, I believe, is important in differentiating radiation cataract from senile cataract.

A further late abnormality observed in the heavily irradiated eye was the formation of new blood vessels on the iris surface. These vessels became massively dilated and in some cases ruptured spontaneously into the aqueous. Concurrently, markedly dilated skin vessels were seen and small hemorrhages and exudates appeared in the retina.

I'd like now to refer back to one of the early ocular findings after exposure to single cataractogenic doses of ionizing radiation — iridocyclitis. I believe that the presence or absence of free-floating cells in the aqueous humor during the first few hours or days following accidental ex-

posure may be of great prognostic value. We have no human data in this regard but the findings in both rabbits and monkeys after fast neutrons, thermal neutrons, and gamma irradiation lead us to believe that similar changes would be expected in a man. If we look at a graph (Figure 2) depicting the number of cells visible in the anterior chamber following fast neutron irradiation, it can be seen that the response occurs within the first hour, reaches a maximum at about 24 hours, its still severe at four days, and falls off rapidly to be absent at seven days. A somewhat delayed but longer cellular response occurs in the vitreous cavity. These latter cells were detectable as long as four weeks after exposure. No visible change in the vitreous was caused by 250 rep. Doses of 75 rep did not result in any cellular reaction in the anterior chamber or vitreous although the animals subsequently did develop minimal lens opacities which would not interfere with vision.

From the above experiment and others involving massive lethal doses, we can make several tentative conclusions in regard to this cellular phenomenon.

1) It is a result of increased capillary permeability in the directly irradiated area and does not occur if whole body radiation is delivered but the head shielded.

2) If adequate doses are delivered it can be seen as early as 20 minutes following exposure.

3) Its severity varies directly with the dose received.

4) If this phenomenon occurs in any degree, then radiation cataract of some degree will surely follow at some later date. The latent period and the degree of lens damage correspond to the severity of the cellular reaction.

5) Lastly, if no cellular response is seen in the first week, one may not say that the eye will not develop opacities. However, if they do occur they will not affect vision.

If man shows a similar response (which we have every reason to suspect) then this simple examination for the presence of free blood cells in the eye may prove to be of great value following either a laboratory accident or an atomic attack. If an individual is irradiated under the above conditions and careful slitlamp exami-

nations are made, particularly during the first four days, I believe that a competent ophthalmologist could predict whether or not a lethal dose had been delivered to the head region. He could also, if cells were visible, state with fair certainty that some degree of radiation cataract would follow. If no cells whatsoever were noted during the daily exams over the one week period following exposure, he would be in a position to reassure the patient that he probably would not develop radiation cataract and that in any case vision would not be disturbed.

I would venture a guess in retrospect that both of the scientists who died after the Los Alamos accidents and also the survivor who developed radiation cataracts, all showed an easily demonstrable cellular response in the eye. It is even more certain that all of the Hiroshima and Nagasaki radiation fatalities and those who subsequently developed radiation cataracts displayed this phenomenon. Perhaps this observation might prove useful in separating the lethally irradiated from the relatively nonirradiated cases following atomic attack.

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The best understood disease?

Galactosemia then represents a perfect example of a disease entity where there is an absence or deficiency of the uridyl transferase enzyme. Such a defect in itself, is not detrimental to the well-being of the individual involved. The danger lies in the ingestion of galactose compounds which result in a considerable accumulation of galactose 1-phosphate in tissue cells.

This produces an inhibition of phosphoglucomutase activity by the simple incorporation of galactose 1-phosphate into the mechanism of the enzymatic reaction to trap the essential active phosphate group of the enzyme. I dare say that this makes galactosemia one of the best understood diseases in pediatrics. *Victor A. Najjar, M.D. Suppression and Absence of Enzyme Activity as a Cause of Disease. Minnesota Med. Dec. 1957.*

Surgical Problems in the Management of Advanced Head and Neck Carcinoma

W. G. HEMENWAY, M.D., CHICAGO

THIS paper deals with 40 cases of carcinoma of the head and neck that I have operated on at the University of Chicago Clinics. A number of advanced and complicated cases have been selected to evaluate the early results of surgical management.

Four cases will be reported in detail to illustrate the type of case and to demonstrate some of the problems involved.

Case 1: Miss B.S., a 70-year old white female, was first seen on May 8, 1953. She complained of nasal obstruction and repeated hemorrhage from the right nasal cavity of 18 months' duration. Examination revealed both nasal cavities filled with friable granular tissue that bled easily. Biopsy was reported adenocarcinoma of the cylindroma type. X-rays showed clouding of all sinuses, except the left maxillary, without evidence of bone destruction.

On June 29, 1953 surgery was performed. The tumor involved all the sinuses on both sides except the frontals and the left antrum. All sinuses, except the frontals, were exenterated. The nasal septum was completely removed and the cavity was cauterized thoroughly. Twenty-three hundred cc. of blood was given. Three months later recurrence was noted in the cavity. This was cauterized thoroughly and 5400 r of external irradiation was given. The patient has remained free of disease for three and one-half years. She wears a prosthesis to obturate the palatal defect. Her nose has become saddled but she has refused to have this corrected.

Comment: A three and one-half year survival on a bilateral sinus carcinoma. Bilaterality is sometimes considered to be a contraindication to surgery. Postoperative X-ray was of considerable value here. The functional result is satisfactory. Cosmetically she could be greatly improved by a hip graft to the nose.

Case 2: W. F., a 64 year old white man was first seen on May 19, 1954. He was in great pain, had difficulty in breathing and swallowing, and had lost considerable weight. He was febrile and had a white blood count of 21,000. A tumor had been diagnosed in

his throat two years previously but he had refused all treatment and even refused a biopsy. Recently symptoms had become so severe he had about 3,600 r of radiation therapy elsewhere without relief. Indirect laryngoscopy revealed an extensive tumor apparently arising from the base of the epiglottis and obscuring the entire larynx. There were two large ulcerated areas on the skin of his neck anteriorly. Biopsy of one of these was reported as squamous cell carcinoma. He was treated with antibiotics for several days to control infection. On July 13, 1954 a resection of the mass was done. The specimen (Figure 1) included the larynx,



Figure 1. Case 2. Above — anterior view of specimen. Below — posterior view of specimen.

From the Division of Otolaryngology of the University of Chicago.

Presented before the 117th Annual Meeting, Illinois State Medical Society, Chicago, May 21-24, 1957.

part of the pharynx, thyroid, parathyroids, and skin and nodes along the carotid sheath on each side. Healing was good and no fistula developed. He was maintained on thyroid, Drisdol®, and calcium lactate. He went back to work as a night watchman. Nine months later a right radical neck was done for a metastatic node. In July 1955 he developed recurrence around the tracheal stoma which was controlled for a few months by 2,828 r of external irradiation. He died of hemorrhage from the tumor adjacent to the stoma 18 months after the first operation.

Comment: Worthwhile palliation in a stage four laryngeal lesion. Patient was free of pain and comfortable almost until his death.

Case 3: C. C., a 56 year old white man was first seen on January 11, 1955. One year previously he had developed a sore under the tip of his tongue which was diagnosed squamous cell carcinoma. Three courses of X-ray therapy had been given with recurrence after each series of treatments. He had a firm ulcerated lesion under the tip of his tongue which was positive for squamous cell carcinoma. A local resection of the tumor and part of the alveolar ridge was done on January 26, 1955. In September 1955 he had an extensive painful submucosal mass fixed to the inner table of the mandible. Biopsy was again positive. On September 23, 1955 a wide resection was carried out under general anesthesia via tracheostomy. The tumor was much more extensive than could be determined when the patient was conscious. (I have found that it often is advantageous to examine lesions of the mouth, tongue, and pharynx under general anesthesia so as to assess the extent of the tumor more accurately.) A wide resection was done. The greater portion of the tongue had to be removed. Both hypoglossal nerves were sacrificed. The mandible was cut through so as to save the outer table and maintain the projection of the chin. A bilateral suprahyoid neck dissection was included in the specimen. A gastrostomy was performed. A sequestra of the mandible was removed under local on March 5, 1956. He has learned to talk intelligibly and can swallow liquids by mouth but he depends mainly on his gastrostomy for nourishment.

Comment: A wide resection of a lesion that had recurred four times previously. Saving the outer table of the mandible made it possible to retain his chin and achieve a good cosmetic result. The poor function resulted from cutting both hypoglossal nerves.

Case 4: On July 2, 1956 a 47 year old white female presented herself at our clinic, stating she had had cancer of the mouth for six years. In 1950 a dentist had biopsied a painful ulcer on the posterior aspect of the lower alveolar ridge on the right and squamous cell carcinoma was found. X-ray therapy was given for over three months through bilateral submaxillary ports. She was symptom free until 1954 when the right side of her face became swollen and painful. A few months later she developed a right facial paralysis and



Figure 2. Case 4. Large defect in right cheek and acromio-thoracic tubed pedicle flap. The distal end of the flap was lined with a split thickness skin graft and was used to close the defect.

difficulty in opening her mouth. She refused further medical treatment and for more than two years, had relied upon injections of a well known cancer serum and Christian Science readings. Finally pain became so severe she was incapacitated and was brought to us by her sister. On examination there was a diffuse firm tender swelling of her right cheek and parotid area, complete right facial paralysis, and severe trismus. The skin was not clinically involved but marked radiation changes were noted in the skin of the upper neck on both sides. There were no palpable lymph nodes. Within the mouth there was a shallow ulcer 2 cm. in diameter situated on the lower posterior alveolus and adjacent cheek and surrounded by dense scar tissue. X-ray showed considerable destruction and fragmentation of the RT ramus of the mandible. A biopsy of the mouth ulcer was reported as squamous cell carcinoma.

The patient was operated upon on August 1, 1956 under general endotracheal anesthesia. The incision began in front of the auricle, extended down into the neck and anteriorly below the border of the mandible to the mid-line. The flap was elevated superiorly to expose the mass. The lesion appeared reasonably circumscribed and was resected. The specimen included the right half of the mandible, the parotid gland, a considerable portion of the mucosa of the cheek, and the contents of the temporal fossa. The cavity was thoroughly cauterized and the skin closed. Rather than close the cheek with the tongue as is often done in these cases, a defect of about 3 square centimeters was

left in the cheek mucosa on the advice of the dental consultant. The prosthodontist claimed that if the defect were closed with the tongue it would be impossible to construct a denture whereas if the opening is left it can be closed by an obturator attached to the denture. Also the operated area can be inspected easily through the defect. The skin incision healed by primary union, despite the fact that it went through heavily radiated tissue. She was fed through a Levine tube for five weeks when the mucosal defect was occluded by a sponge and she was able to eat by mouth. She received 4,500 r to the temporal region.

On November 2, 1956 a small area in the center of the cheek flap broke down and biopsy was positive for squamous cell carcinoma. A large area of the cheek was resected and the entire cavity was cleaned out again and bovied thoroughly. As no carcinoma was found in any of the tissue removed it was decided to close the defect in the cheek with a lined tubed pedicle flap from the thorax (Figure 2). Although it is much too early to be optimistic I feel there is a chance that we have cured this lady. In any case she is comfortable and free of pain.

Sex: Thirty-one of the 40 cases were males and nine were females.

Age: Varied from 35 to 72 years.

Duration of Symptoms: Varied from a few weeks to 15 years.

<i>Histopathology:</i>	Number	Men	Women
Squamous cell carcinoma	32 (80%)	27	5
Adenocarcinoma	5	3	2
Mixed squamous and adenocarcinoma	2	1	1
Uncertain	1	1	

Complicating Diseases Increasing Operative Risk

14 cases — 37%

Cardiovascular	10
Abdominal	2
History of carcinoma elsewhere	1
History of schizophrenia	1

Location of Primary Tumor And Number of Tumors

Pharynx	10
Larynx	8
Mouth	8
Paranasal sinuses	6
Tongue	5
Parotid gland	2
Lip	1
Auricle	1
Skin of forehead	1
Uncertain origin	1

Multiple primaries

2

Multiple Primaries: One had three primary lesions when first seen, one in the mouth and one in each pyriform sinus. He had received X-ray therapy for a dental infection 15 years previously. The other had two primaries, one in the larynx and one in the pharynx and later developed another primary in the pharynx and two skin carcinomas. A parotid tumor had been successfully treated with X-ray therapy 30 years ago.

Surgical Procedures on Primary Lesions *Number of Cases*

Pharynx

1. Total laryngectomy plus partial pharyngectomy	4
2. Partial pharyngectomy	2
3. Electrosurgical destruction of tumor	3

Larynx

1. Laryngectomy	8
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Mouth

1. Hemimandibulectomy and resection of tumor	2
2. Resection of tumor plus hemimandibulectomy	1
3. Resection of tumor plus partial glossectomy plus partial resection of mandible	1
4. Bilateral maxillary resection	1
5. Subtotal resection of hard and soft palate plus electrocoagulation	2
6. Electrocoagulation of tumor	1

Paranasal Sinuses

1. Radical maxillary resection	
(a) <i>Unilateral</i>	2
(b) <i>Bilateral</i>	1
2. Radical maxillary resection plus orbital exenteration	3

Tongue

1. Subtotal glossectomy	2
2. Lateral pharyngotomy plus electrocoagulation of tumor	2

Parotid gland

1. Total parotidectomy	1
2. Resection of auricle and radical mastoidectomy	1

Other Procedures

1. Radical neck dissection plus total laryn-	
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gectomy. Primary uncertain — either neck or larynx

2. Hemimandibulectomy and radical neck — primary in lip was cured — submaxillary nodes adherent to mandible.

3. Total parotidectomy plus resection of auricle and radical mastoidectomy. Secondary tumor. Primary in skin of forehead had been cured.

Metastasis

A. Cervical lymph node metastasis

1. Palpable when first seen 8 cases—20%

2. Developed node after treatment of the primary 8 cases

B. Known systemic metastasis 8

Radical Neck Dissections

1. En bloc resections together with primary lesions for palpable nodes when first seen 8 cases—20%

Larynx	3
Pharynx	3
Others	2

Palpable nodes when first seen — neck dissection done after primary apparently eradicated by X-ray therapy. 2 cases

Prophylactic Neck Dissections 8 cases—20%

a. With positive microscopic carcinoma 3 cases—37%
covered 5 cases

Neck dissections for nodes appearing later

5 cases

Bilateral neck dissections 3 cases

— none at same operation

Suprahyoid neck dissection 1 case

Bilateral. No carcinoma found.

Common carotid ligation with radical neck. 1 case

No hemiplegia.

“Extended” Radical Neck for high fixed nodes 3 cases

Dissection of facial nerve and removing portions of the neck muscles and other structures. None was cured. One has local recurrence and the other two developed systemic metastasis.

Total radical neck dissections 25 operations

In 22 patients (55%) of which six cases are still free of disease

Secondary plastic procedures 7 cases—18%

Prosthetic appliances 6 cases—15%

Complications

Partial necrosis of skin flaps 5 cases

Fistulae 9 cases

Four had to be closed surgically

Osteomyelitis of mandible 2 cases

Postoperative hemorrhage from

carotid artery 1 case

Operative mortality 3 cases—7.5%

b. With no carcinoma dis-

1. A 54 year old man had a total laryngectomy and radical neck on July 7, 1953. He developed a wound infection and fistula. He died of staphylococcal enteritis from terramycin therapy 25 days postoperatively.

2. A 67 year old white man had hemimandibulectomy and radial neck on January 12, 1954. He had been in mild congestive failure preoperatively and apparently was stabilized on digitalis. He died two days postoperatively of sudden cardiac decompensation. Postmortem showed an unrecognized old constrictive pericarditis.

3. A 70 year old man had a partial pharyngectomy and total laryngectomy. He died suddenly of coronary occlusion 11 days postoperatively.

X-ray therapy

1. None 11 cases 27.5%

2. Preoperative only 15 cases

3. Postoperatively only 6 cases

4. Both pre-operatively and postoperatively 8 cases

The majority of these cases were treated at the University of Chicago, all by supervoltage therapy, either the Van der Graaf generator or the Cobalt revolver.

In all, 24 cases, or 57.5 per cent, were radiated before surgery. I do not propose to discuss the relative efficiency of surgery versus X-ray in these cases. However, I think each case should be seen by both a surgeon and a radiotherapist before treatment is commenced. Certainly dissection is easier and healing is better if no X-ray has been given preoperatively. However, surgery is feasible after X-ray therapy especially if supervoltage, and usually can be carried out satisfactorily. In only one case in this series was severe damage to tissues done by X-ray therapy. This resulted in a large fistula, postoperative ca-

rotid hemorrhage, and prolonged morbidity. In advanced lesions I would favor an initial surgical approach followed in some cases by postoperative X-ray therapy.

Some Reasons Why These Lesions Become Advanced

- | | |
|--|---------|
| 1. Failure of patient to seek medical aid or refusal to follow advice even when diagnosis was evident. | 7 cases |
| 2. Prolonged symptomatic therapy for supposedly benign conditions. | 8 cases |
| 3. Failure of other forms of treatment | 7 cases |
| 4. Rapidly growing tumors | 5 cases |

Results

- | | |
|--|------------------|
| 1. Dead | 17 cases — 42.5% |
| 2. Alive with known persistent disease | 11 cases — 27.5% |
| 3. Alive and well | 12 cases — 30% |

Palliation.

Of the 21 cases who survived surgery and eventually developed recurrence it is my opinion that at least 11 received worthwhile palliation. In the other 10 cases the course of the disease did not appear to be significantly altered.

Results According to Primary Tumor Sites

- | | | |
|---------------------|------|-----------|
| | | 10 tumors |
| 1. Pharynx | | 9 cases |
| Alive and well | None | |
| Alive and recurrent | 5 | |
| Dead | 4 | |
| 2. Larynx | | 8 cases |
| Alive and well | 2 | |
| Alive and recurrent | 1 | |
| Dead | 5 | |
| 3. Mouth | | 8 cases |
| Alive and well | 4 | |
| Alive and recurrent | 1 | |
| Dead | 3 | |
| 4. Sinus | | 6 cases |
| Alive and well | 3 | |
| Dead | 3 | |
| 5. Tongue | | 5 cases |
| Alive and well | 1 | |
| Alive and recurrent | 1 | |
| Dead | 3 | |
| 6. Parotid gland | | 2 cases |
| Alive and well | 2 | |
| 7. Others | | 3 cases |
| Alive and well | 0 | |
| Alive and recurrent | 2 | |
| Dead | 1 | |

Comment: It is too early to assess results but to date the mouth and sinus group are encouraging.

DISCUSSION AND PRINCIPLES OF MANAGEMENT

1. Consultation and close co-operation with a radiotherapist.
2. Careful pre-operative medical evaluation, especially cardiovascular.
3. Often a pre-operative dental consultation is valuable, particularly if a prosthesis is to be constructed.
4. General anesthesia via an endotracheal tube or a tracheotomy was used in all these cases.
5. Blood replacement is nearly always necessary. One to four pints are commonly used. Two cases in this series had 11 pints each.
6. Surgery involves wide en bloc resections including primary lesion and lymph node bearing areas if possible. A wide variety of procedures are employed. Prophylactic neck dissections are done in selected cases.
7. Large wide open cavities are left in sinus and ear cases. This is essential for adequate follow-up.
8. Often dissection is followed by extensive electrocautery. This delays healing and prohibits primary skin grafting but I think it will materially increase the cure rate.
9. Important structures such as the facial nerve, hypoglossal nerve, eye, palate, and larynx often must be sacrificed.
10. Tracheotomy is done if there is any doubt about airway or secretions postoperatively.
11. Postoperative care includes tube feedings, tracheotomy care, early ambulation, antibiotics. Special nurses are helpful.
12. A careful follow-up is done. Post operative examinations are frequent. Recurrences are treated vigorously. Several cases have been saved by early discovery and treatment of small recurrences.

CONCLUSIONS

1. Forty advanced carcinomas of the head and neck which were treated surgically by one operator are reviewed.
2. The operative mortality was 7.5% (one of three deaths was avoidable).
3. Early results in this small series are encouraging when the primary was located in the

mouth, paranasal sinuses, and parotid gland. None of nine cases of pharyngeal cancer is alive and well.

4. Pre-operative X-ray therapy, especially if supravoltage, does not contraindicate surgery.

5. The results compare favorably with those obtained in advanced malignancies in other parts of the body.

6. The fact that deformities are produced and function interfered with is counterbalanced by

a reasonable hope for cure or worthwhile palliation.

7. Plastic reconstructive procedures and prosthetic appliances do much to rehabilitate these patients.

8. The patients almost invariably seem grateful that an attempt is being made to cure them and for the relief of pain and discomfort that surgery usually accomplishes.

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‘Stuffy nose’ voice

Rhinolalias constitute disturbances of both voice quality and production of the sounds of speech. While each may evidence variations, the two major types of this speech disorder are rhinolalia aperta and rhinolalia clausa. Rhinolalia clausa, also referred to as negative nasality, is characterized by the absence of nasal resonance as required for normal American speech. The result is a “stuffy nose” voice quality and failure in the production of the nasal consonants, m, n, ng. The latter are the only sounds of our speech properly nasalized and their production requires unobstructed passage of the voice stream posteriorly into the nasal cavity and out via the nares. The most common causes for rhinolalia clausa are nasal polyps, deviated nasal septum, hypertrophied adenoids, and nasal congestion due to colds, allergies, and any other of the conditions resulting in nasal stenosis.

Rhinolalia aperta, also referred to as positive nasality and by far the most serious of the rhi-

nolalias, is characterized by an unpleasant nasal voice quality and varying degrees of failure in the production of all sounds of speech except m, n, ng. (Articulation of even these is defective in many severe cases.) The characteristics of rhinolalia aperta arise from an undesired nasal escape of the breath and voice streams of speech.

Possible causes for rhinolalia aperta are paralysis of the velum and/or the pharyngeal wall, cleft palate, cleft velum, atrophy of the posterior palatine or of the pharyngeal nerves, post-adenoidal conditions, low energy level which renders the individual incapable of the vigor required for velo-pharyngeal closure, foreign or regional dialect, and congenitally widely separated velum and pharyngeal wall. Commonly active, too, is residual cleft palate or velum in which the velum is too short for its function in velo-pharyngeal closure or in which the defective speech patterns previously established persist as a now purely functional disorder. *Robert N. Plummer, M.D. Rhinolalias. Arizona Med. Nov. 1957.*

Objectives and Methods of Treatment of Diabetes Mellitus

HENRY T. RICKETTS, M.D., CHICAGO

Dr. Robert Adolph: We believe that it is important to review the treatment of diabetes mellitus periodically. This helps to prevent complacency, allows us to incorporate new information into our therapeutic armamentarium, and exposes us to the ideas of men from other institutions. Today, Dr. Henry T. Ricketts, Professor of Medicine at the University of Chicago College of Medicine, will discuss some of his ideas on the objectives and methods of treatment of diabetes mellitus.

Dr. Henry Ricketts: There are five principal objectives in the treatment of diabetes mellitus: 1) relief of symptoms; 2) establishment of normal nutrition by diet regulation—reducing the obese and fattening the underweight patient to attain their respective ideal weights; 3) education of the patient toward a thorough understanding of his disease; this requires not only a simple straightforward manual that the patient can study but considerable time and repetitive effort by the physician; 4) prevention of complications; and 5) preservation of the insulin producing capacity of the pancreas.

I shall emphasize the fifth objective in my discussion, as I feel that not enough attention has been paid to it. We know that the daily blood sugar pattern, as determined by six hour blood sugar levels, is unpredictable from day to day in the juvenile diabetic, showing wide fluctuations. The daily pattern in the typical adult diabetic, on the other hand, tends to reproduce itself day after day and to remain within a relatively narrow range. We also know from analyses of the pancreas removed at postmortem that the amount of extractable insulin in units per gram of tissue is much less in the age group below 20 than in older diabetics. These facts suggest that the juvenile diabetic, unlike the adult diabetic, produces little or no insulin of his own. As a result, the juvenile diabetic must rely largely upon

exogenous insulin, and hence exhibits a peculiar inability to maintain homeostasis. It would seem to follow that treatment should be directed toward prevention of further loss of the insulin secreting potential of the pancreas.

Glycosuria and ketonuria may be produced in dogs and cats by the daily injection of anterior pituitary extract for three weeks; if the injections are then discontinued, diabetes will persist. On microscopic examination, the islet cells are seen to have undergone hydropic degeneration and there is a decrease in the insulin content of the pancreas. Lukens demonstrated in partially depancreatized cats treated with anterior pituitary extract, that early treatment with insulin could prevent the development of permanent diabetes. It has also been shown that if these animals are treated instead with either a reduced diet or phlorhizin, which lowers the blood sugar level by blocking the renal tubular reabsorption of glucose, permanent diabetes could likewise be prevented. These and similar studies suggest that in the presence of pancreatic damage any agent that lowers the blood sugar level, whether it be diet, phlorhizin, or insulin, may prevent permanent diabetes by protecting the insulin secret-

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ing potential of the pancreas. This suggests that an individual with incipient diabetes might have his disease minimized or even reversed by careful management.

There is some clinical foundation for this latter concept. If early diabetes is poorly controlled, later we frequently see wide swings in blood and urine sugar. The early diabetic who is well managed early in his course, however, tends to remain well controlled.

I believe that the prevention of complications also is partly a function of the control of glycosuria. In children with uncontrolled glycosuria, we see retardation of growth and the early development of cataracts. Cataracts rarely develop in the well controlled young diabetic. Urinary tract infections are more likely to occur in sugar laden urine. Dental infections, diabetic neuritis, and coma are more frequent in the poorly controlled diabetic. It is not clear at present whether vascular complications are preventable to any significant extent. Animals subjected to prolonged elevations of blood sugars show vascular degenerative changes, but it is always questionable whether these changes are comparable to those seen in man.

In reported studies of controlled diabetics it is always difficult to tell if the disease is well controlled in the individual from day to day while not under medical surveillance, and for this reason such studies should be taken with a grain of salt. Joslin followed 189 patients for 20 to 29 years and found that 76 per cent of the well controlled group had slight or no retinopathy, whereas 67 per cent of the poorly controlled group had moderate to marked retinopathy. This kind of data makes me want to strive for good control. It probably is not the level of blood sugar per se that is important, but other biochemical alterations that we do not as yet understand but which accompany blood sugar changes. On the other hand, good control does not necessarily exclude diabetic complications. Twenty-four per cent of Joslin's well controlled group had moderate to marked retinopathy, while 33 per cent of his poorly controlled group had no or few eye-ground changes. Heredity may have a large influence.

Methods of therapy are familiar to all of you, but I would like to stress a few points. It is commonly recognized that the average patient receiving protamine-zinc-insulin has his lowest

blood sugar in the morning and his highest in the evening. This generally is incorrectly attributed to a late peak action of P.Z.I. Our studies show that protamine-zinc-insulin administered daily exerts a continuous intensity of action. The low morning blood sugar occurs because the patient has not eaten overnight. N.P.H. and globin-insulin sometimes fail to control the early morning blood sugar and, therefore, are not of themselves ideal. We find that in relatively severe diabetes the addition of regular insulin in the morning more closely approaches an ideal insulin coverage.

The treatment of diabetes mellitus with pills—that is, tolbutamide, deserves some comment. It has no significant effect on the juvenile diabetic. Our experiences with the drug have been disappointing. We selected for study a group of eight relatively mild adult diabetics who should have shown a good response. One 70 year old diabetic, who required 30 units of insulin daily, showed only a moderate decrease in glycosuria and his blood sugar remained above 200 mg. per cent. To further confuse the picture a 60 year old patient who had required 50 units of NPH daily for the past four years had a good response. Only one out of the eight mild diabetics showed a favorable response.

Enthusiasm for this drug may be due to improperly controlled observations. I would guess that probably not more than 50 per cent of adult diabetics can be controlled satisfactorily with tolbutamide. Its mechanism of action is not yet known, but it is not an insulin substitute.

It has been shown that tolbutamide potentiates the effect of suboptimal doses of insulin in the depancreatized dog. Therefore, this effect cannot be due to an action on the pancreas. It probably does not directly potentiate insulin activity as the nitrogen excretion has been shown not to decrease. An action on the liver has been postulated, but Levine and Houssay have shown that the liver does not have to be present for the drug to exert its effect. My attitude toward these drugs is conservative. If it turns out that they act on the liver, rather than on the pancreas, it makes very little sense to treat the liver when the disease begins in the pancreas.

Dr. Eugene J. Ranke, Clinical Assistant Professor of Medicine: Have you had much experi-

ence in the repetitive use of quick acting insulin in the absence of acidosis?

Dr. Ricketts: We have not, feeling it was inconvenient. However, in some juvenile diabetics we are forced to use regular insulin before meals and at 2:00 a.m.

Dr. D. D. Gellman, Research Fellow in Medicine: You have talked about good and bad control and the frequency of complications. Could not much of this problem be confused by our thinking of diabetes as a single disease, whereas juvenile and elderly diabetes may be different diseases? The elderly diabetic may not be deficient in insulin, but may be suffering from some other metabolic disorder.

Dr. Ricketts: Is diabetes two diseases? I doubt that. The differences between juvenile and adult diabetics may be due to a difference in the available insulin, owing to either an absolute deficiency of or an antagonism to available insulin.

Dr. Gellman: Does the elderly diabetic ever become ketotic?

Dr. Ricketts: Much less often than younger patients.

Dr. Gellman: I would like to know how you feel about the fat content of the diet. Some specialists advise diets containing 45 to 50 per cent of the calories as fat, while others recommend a high carbohydrate fraction with only 20 to 25 per cent of calories as fat.

Dr. Ricketts: The fat content of the diet probably has some influence on vascular disease, but we cannot say how much in the individual case. I follow the middle course, giving 35 to 40 per cent of the total calories as fat. I lean toward lower fat diets but do not favor an extreme course at this time.

Dr. Harry F. Dowling, Professor of Medicine: I believe that Dr. Paul has gathered some figures from our clinic patients in the same way as did the Joslin group. Did they not tend to confirm Joslin's findings?

Dr. Jerome T. Paul, Clinical Associate Professor of Medicine: Yes, we found also that well controlled diabetics tended to have less retinopathy.

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What thy left hand doeth

The Trade Bank and Trust Company of New York has announced in a no less impressive agency than the *New York Times* of December 24 its pre-Christmas offering of a left-handed checkbook. This fund-disbursing device, with its stubs on the right, is dedicated to all moneyed southpaws. It is assumed that to write left, with such equipment, and remain solvent, one must think right.

Despite appropriate and inevitable allusions

to left-handed monkey wrenches and similar bon mots, the levorotatory checkbook is not of necessity a matter of levity. Serious investigations may be in order, in fact, regarding the speed at which a bank balance may disappear in a counter-clockwise direction compared with the usual clockwise avenue of exit by means of the more orthodox type of checkbook.

Students of reading and writing disabilities and other forms of confusion are urged to take notice. *Editorial. New England J. Med. Feb. 6, 1958.*

Controversial Aspects of Abnormal Uterine Bleeding

MELVYN A. BAYLY, M.D., CHICAGO

ABNORMAL uterine bleeding is a common complaint. Many known causes are easily recognized, and management in such instances is relatively clear. But what confusion exists when a patient complains of abnormal bleeding and the pathology is endometriosis, ovarian tumor, or residues of pelvic inflammatory disease. What about adenomyosis? Does it cause abnormal bleeding, and should we be able to recognize it clinically? We certainly don't now.

For many years the literature has indicated that most physicians are of the opinion that any of the above mentioned lesions can cause abnormal uterine bleeding. If one looks far enough there will be a theory as to the mechanism of such bleeding. Several years ago we decided to make an attempt to throw some light on this perplexing problem by investigating non-hormone producing tumors of the ovary, endometriosis, adenomyosis, and residues of pelvic inflammatory disease.

The general plan of investigation was simple. Consecutive cases of pertinent pathology operated upon at the gynecological service at Chicago Wesley Memorial Hospital were grouped and studied. Each case was required to have the uterus, tubes, and ovaries or an adequate description of the ovaries where they were retained. After removal, the tissue was taken to the hospital laboratory where sections were cut and the remaining tissue was sent to the gynecological laboratory of the medical school where the specimen could be studied thoroughly. Where the history was characterized by abnormal bleeding, careful search was made for pathology known to cause such bleeding. If found, it was considered only a possible cause. When proof was seen, the case was listed as explained. The others were evaluated further.

From the Dept. of Obstetrics and Gynecology, Northwestern University Medical School.

Presented before the Annual meeting Illinois State Medical Society, Chicago, May, 1957.

For the purposes of this series we have considered as abnormal bleeding the following: intermenstrual bleeding, postcoital bleeding, increased amount of bleeding at periods, increase in the number of days as compared to the patient's usual period, decrease in the menstrual interval below 21 days, and postmenopausal bleeding. The latter was defined as bleeding one year or more after the menses had previously ceased.

Non-Hormone Producing Ovarian Tumors

Granting that hormone producing tumors may cause menstrual abnormalities, we decided to investigate the non-hormone producers. Dr. Ronald R. Greene¹ and I collected and evaluated 154 consecutive cases of non-hormone producing ovarian tumors in the manner outlined. The types encountered in this series are listed in Table 1.

Table 1

Pseudomucinous cystadenomas	18
(with ser, cyst, fibromas & Brenner tumors)	
Serous cystadenomas	33
Serous cystomas	20
Benign teratoids	34
Fibromas, fibroadenomas	16
Carcinomas	30
Brenner tumors alone	3

After careful evaluation, abnormal uterine bleeding was found to be present in 38 (24.6%). Abnormal bleeding was believed to be caused by coexisting pathologic changes in 28 instances. In only 10 of the 154 (6.5%) could the tumor be considered as a possible cause of the bleeding. It seemed to us that if non-hormone producing ovarian tumors actually constitute an important cause of abnormal bleeding, the incidence would be much higher. If so, it is high time we ceased believing and teaching that there is a mysterious causal relationship between non-hormone pro-

ducing ovarian tumors and abnormal uterine bleeding.

Endometriosis

We next turned our attention to external endometriosis and abnormal uterine bleeding. Dr. L. L. Gossack² and I evaluated 119 cases of endometriosis, each with microscopic confirmation. In 1177 consecutive laparotomies, endometriosis was diagnosed in 264, an incidence of 22.4%. The uterus was removed in only 212 cases, however. The tissue furnished microscopic confirmation of the gross diagnosis in 119 cases. In 93 instances endometriosis could not be diagnosed in the sections available. The majority of these were described grossly as plaques and implants.

In the group where microscopic confirmation was possible, there were 40 cases of abnormal uterine bleeding, for an uncorrected incidence of 33.7%. Coexisting pathological lesions thought to be the cause of bleeding were found in 29 cases. Though the remaining cases had pathology such as fibroids, bilateral tubo-ovarian abscesses, or adenomyosis, we felt that the coexisting lesions were noncontributory. This left a corrected incidence of 9.8%. Since the series was presented, we have evidence that adenomyosis may well have been responsible in two instances leaving only 7.6% of the series unexplained. The findings in this series certainly do not substantiate the popular concept that endometriosis is either a frequent or an important cause of abnormal uterine bleeding.

Adenomyosis

In tackling the problem of adenomyosis and abnormal bleeding, Dr. Christina Yates³ and I went over 103 cases of adenomyosis, reviewing in detail all microscopic sections and clinical histories. We felt that adenomyosis could be considered present when the glands and accompanying stroma invaded the myometrium at least the width of one 10x field. We also divided the cases into three groups depending on whether the inner, middle, or outer one-third of the uterine wall was invaded. These areas were then compared.

The most striking feature on first examination

was the uncorrected incidence of abnormal uterine bleeding — 51%. After associated pathology was evaluated, 27 (26%) of the patients in the series still had unexplained abnormal uterine bleeding. This is almost four times what we have come to believe is the normal increment of abnormal bleeding in such a series. We were left with the impression that adenomyosis causes abnormal uterine bleeding in some manner. The mechanism, however, is not clear.

Residues and Pelvic Inflammatory Disease

The study on residues and pelvic inflammatory disease is in its infancy. Dr. Allwyn Gatlin⁴ and I are collecting a series of residues of pelvic inflammatory disease, subacute pelvic inflammatory disease, and acute pelvic inflammatory disease where available. The series is as yet too small to be significant. However, for this meeting I ran through the first 66 cases which included 39 instances of residues, 7 cases of subacute pelvic inflammatory disease, and 20 cases of acute pelvic inflammatory disease, the majority with tubo-ovarian abscesses. The results were startling. Of the 66 patients, 23 (34.8%) had abnormal bleeding. When corrected for known causes, only 4 remained. Two of these were cases characterized by spotting. Though endometrial polyps were present, we could not see any evidence of their causing the bleeding. This percentage of 6.6%, along with the gross percent of 34.8%, bears a striking resemblance to that found in the endometriosis and ovarian tumor series.

SUMMARY

Though we are not sure at this moment, it seems that we will soon add residues of pelvic inflammatory diseases to endometriosis and non-hormone producing tumors of the ovary as lesions that do not contribute appreciably to abnormal uterine bleeding. We must put adenomyosis on the other side of the ledger.

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How Important Are Emotional Factors in Allergic Diseases of Children?

HOWARD J. LEE, M.D., MILWAUKEE, WIS.

ALLERGIC diseases are produced by physiochemical reactions, usually the result of immune mechanisms. Asthma, hay fever, eczema, and urticaria are induced by antigen-antibody reactions. Symptoms may be produced by many factors, and may be produced or augmented by emotional stress. The tendency to emphasize the latter to minimize the former deprives the patient of proper management.

Neglect of the physical component leads to progression of the disease. In childhood, where proper control could lead to relief or reduction of the process, sole emphasis on the psychosomatic aspect paves the way for the complications so commonly seen in the adult. A large percentage of the cases of asthma, rhinitis, eczema, and urticaria are mediated by the presence of a skin sensitizing antibody or reagin. The development of this antibody is dependent upon exposure to an antigen usually an inhalant, a food, or a drug. The antibody to one or to many substances may be present for years before clinical symptoms result. In fact, in some individuals, symptoms never appear. Identification and removal of the source of this reaction is of first concern. However, in many cases, modification of the antigen-antibody reaction by hyposensitization may be necessary.

Allergic disease may manifest itself first as a feeding problem, with or without colic. It would be naive to assume that all feeding problems or all colics are the result of allergic reactions.

Dermatitis may be the first allergic manifestation but again not all dermatitis of infancy and childhood is allergic even with the classic appearance of atopic dermatitis. A high percentage of these lesions are initiated by an antigen-

antibody reaction, but external irritation from soaps and clothing can initiate itching, and the resultant dermatitis may be factitial. The sites of appearance of dermatitis are those that respond to sympathetic stimulation from crying or anger with increased blood supply or blush. The resulting pruritus, responded to by scratching and trauma, may lead to a dermatitis. Atopic dermatitis, once established, and the provoking factor removed or controlled may be perpetuated by scratching, irritating clothing, or medication.

Urticaria in children usually is acute, due to exposure to certain foods (notably fish, nuts, or seeds) or to massive inhalant exposure. It may accompany infectious disease in childhood. Urticaria may be also due to a massive histamine release from non-antigen antibody reactions on a vasomotor basis.

Seasonal rhinitis in childhood usually is more clearly the result of atopic reactions. Perennial rhinitis may require more study to establish the mediating causes. Vasomotor and hyperesthetic rhinitis, more commonly seen in adults, are not as evident. Infective responses may result from continuing reaction in lymphoid tissue or in paranasal sinuses.

Bronchial asthma may occur spontaneously with upper respiratory infection or complicate unrecognized or neglected seasonal rhinitis or hay fever. Asthma may result from obstruction of the airway by abnormal secretion with accompanying bronchospasm associated with an intercurrent upper respiratory infection. Asthma also may result from other obstruction of the bronchi due to foreign body, tumor, or congenital anomaly.

The prominent symptoms of allergic diseases—itching of the skin or nose or wheezing—may be produced or aggravated by emotional disturbances alone. Trauma from rubbing or blowing the nose may increase symptoms of hay fever

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as readily as uncontrolled scratching of eczema may aggravate a simple problem. Bronchospasm, initiated by allergic reaction, may be augmented as hyperventilation further impacts mucous plugs. Fright, anxiety or crying, or even laughter may initiate the bronchospastic habit.

These normal reactions to abnormal tissue, have been placed in the realm of functional or psychosomatic diseases by laymen and uninterested or uninformed physicians. The individual with asthma or hay fever is looked upon as a poor unfortunate sufferer who really should pull himself together and snap out of it. The infant or child with dermatitis provokes a similar response when he, in his paroxysms of itching and resulting trauma of abnormal tissue, is but following a normal response of an uncontrolled symptom.

Many studies have been directed toward the emotional factors of allergic disease. Miller studied maternal rejection of eczematous infants and found that 76 percent of the mothers manifested rejection, present in only 26 per cent of mothers of normal children. Psychiatrists differ in their interpretation of rejection. Certainly, there is no titration point. A comparable study of the mothers of infants with congenital defects might be interesting.

Recently Popper reported psychiatric study of 25 cases of viral hepatitis. Eight of the patients came from broken homes; 12 manifested enough personality drive to consider them over-aggressive, and seven were divorced or separated from their mates. Eighteen had had acutely disturbing emotional episodes within four to six weeks of the onset of their illness. We certainly would not accept a conclusion that viral hepatitis is a psychosomatic disease, and he did not. It would appear that patients with viral hepatitis have had stigmata of functional illness, probably as frequently and as severe as all of us.

The prevalence of primary concern with the functional in allergy was evidenced by the question asked recently by an intern: (He said) "Doctor, what success do psychiatrists have with hay fever?" I replied, "The same as they have with fractures." This young physician's question suggests a deficiency in teaching and understanding of allergic disease. If such knowledge is lacking in our medical school, proper orientation need not be expected from the laymen. It is but

a normal progression from the above to the inaccurate statements we hear daily: "We were told that my child would outgrow his allergy." "Johnny's father had hay fever which was treated but we were told that Johnny was too young to be tested, and that skin tests didn't show anything anyway."

The pediatrician has the responsibility to orient the patient and his parents through the early years. The wisdom of his counsel and his approach to the presented problem may control it at an early age and prevent complications. Proper guidance may reduce emotional factors that are secondary to the primary disease. He can teach the allergic child that he differs from his normal associates only in his inherent capability of developing apparently unnecessary antibodies which may cause illness. A child who develops angioedema from fish ingestion, who reacts with asthma from eating nuts or from intimate animal contact soon recognizes his exposure and avoids it. I cannot recall a case in which a child has wilfully exposed himself to an explosive reaction to gain attention or to keep from fulfilling an obligation. The explosiveness of reactions and the severity of symptoms would enhance aversion to the causative agent.

Coupled with overemphasis upon the emotional causation of allergic disease is the error that a child outgrows his allergy. The increasing severity of the disease and the rapid development of complications overshadow the trauma of properly applied skin tests. In young children this trauma may be minimized by the use of passive transfer technique. Review of the history, in the light of physical and immunologic evidence, allows explanations for many episodes of illness and sets the foundation not only for proper orientation of the patient and his parents but for future management.

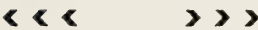
A required program of hyposensitization gives the physician repeated opportunity to evaluate the patient, his physical and emotional growth, and his reaction to intercurrent episodes of allergic exposure and to infection. It also gives the physician the opportunity to answer questions, explain more fully the mechanisms involved, and to observe the development of new, previously potential sensitivity that can become clinical.

As counselor and observer, the physician can control the growth and development of his patient. Normal emotional reactions to continu-

ing illness may be expected. Exaggerated or abnormal emotional responses may be recognized and reoriented at their origin. Usually this will require no more specialized training than should be the part of any physician. Occasionally anxiety reactions on the part of the patient or rejection and inadequacy on the part of a parent may need the help of one specially trained in mental illness. It would appear that this would not be more frequently needed than in any other

chronic illness such as diabetes, congenital heart disease, or tuberculosis.

The proper integration of emotional reactions to allergic or any disease requires early diagnosis and proper management of the primary condition. The pediatrician proceeding in this manner can return to usefulness a reversible problem. Proper recognition and management in these formative years can do much in preventing the complex and often less reversible problems that are seen in adult life.



“Lump” in neck

There are many and varied causes for an enlarging lump in the neck. It is often most difficult to differentiate between a simple cyst or lymph node and a metastatic carcinoma. The most malignant metastases may feel innocent and be ignored when a primary carcinoma is present in an asymptomatic area. Lesions of the nasopharynx and hypopharynx usually give only minimal complaints, if any at all, and go undetected for a considerable time. Frequently, metastasis to the neck is the presenting symptom. A primary carcinoma must always be excluded by carefully searching into the “blind” and “asymptomatic” areas. Complete evaluation of the patient with a medical history and physical exam-

ination is most essential. A lump in the neck may represent a metastasis from a distant lesion in the chest or abdomen, or it can be associated with the generalized lymphadenopathy of the lymphomas. Therefore, careful investigation must precede a biopsy or removal of a cervical gland. Indiscriminate interference may be unnecessary or may jeopardize the results of definitive treatment. Seeding and dissemination of malignant cells throughout a biopsy wound may spoil the effectiveness of en bloc radical neck dissection if the latter is indicated. Edward C. Brandow, Jr., M.D.; Benjamin M. Volk, M.D.; and Kenneth B. Olson, M.D. *The Significance of a Lump in the Neck. Postgrad. Med. Oct. 1957.*



The social hour

The physician's invitation for an after dinner talk before a medical society is an honor, but it can be a burden. He is asked to discuss a medical topic, most often in his specialized field, for 20 to 40 minutes. The subject may be as A-B-C to him, but to express himself to others in the allotted time, hours of preparation are necessary. If the gathering is in his home town he has to be grateful because less time is needed for traveling. But most speakers come from out of town, and it is surprising how often train and plane schedules conflict, causing unproductive delays and boresome layovers.

After briefer office hours than is customary, there is a hurried sprucing up; a quick check of notes, slides, charts, and other necessary equipment; then "off to the races." Enroute, in the recesses of Dr. Orator's mind, there is confusion as to patient appointments, office routine, hospital rounds, and home responsibilities that have been shifted or neglected for the past few days.

Once at the meeting, there is the cheery hello and some gracious backslapping, for the cocktail hour is under way. A sense of duty mixed with the desire to present his paper well keeps the hail fellow from toasting others. The audience-to-be meanwhile has imbibed enough to be thoroughly relaxed and their appetite has been whetted. After the repast the good mem-

bers of the society, if not lulled into lethargy, are pleasantly drowsy.

By the time the speaker is introduced, his first chill reaction sets in. The sensible, thought-provoking study he has prepared is not suitable at this time. His colleagues would prefer gay, light-hearted entertainment.

Conviviality helps to solidify the local medical group but the speaker finds he has become the square peg in the round hole. One reason our profession has thrived is because we are willing to pass along our experience and discoveries in our journals and by word of mouth. Let's not discourage these valuable sources of transmitting information.

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Blocking agents for edema

We do not know the mechanism by which edema formation takes place during congestive heart failure, nephroses, cirrhosis of the liver, and toxemias of pregnancy. The most popular theory implicates the adrenal hormone, aldosterone.

Cardiac edema must begin with circulatory incompetence and from here the trail takes us to the mechanisms by which the kidneys fail to excrete sodium and water. Initially there is increased tubular reabsorption of sodium; later, the glomerular filtration rate is reduced. It is well established that the increase in tubular reabsorption of sodium is caused by a rise in cir-

culating aldosterone. But what stimulates the excessive excretion of aldosterone? It is believed that the "dislocation" or abnormal redistribution of extracellular fluid plays a role.

The first known examples of aldosterone blocking agents were reported recently by Kagawa, Cella, and Van Arman.¹ The experimental compounds, SC-5233 and SC-8109, appear to have this power and may develop into useful agents in elucidating the role of aldosterone in the etiology and the treatment of edema.

According to Liddle², aldosterone has a "sodium saving" effect when sodium deprivation takes place, as in edema. His studies show that SC-5233 and SC-8109 not only have a "sodium losing" effect but also tend to inhibit potassium excretion.

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Definitive rehabilitation

In the diagnosis and treatment of neuromusculoskeletal disease and injury, the physician is aware that in some cases, despite the most intensive and modern program of therapy, there will result a significant degree of permanent partial disablement. Following adequate treatment for the acute state of illness, the patient enters a period of convalescence with the expectation that his return to normal activity will be attained with time, patience, and appropriate physical restoration procedures.

Such optimism arises from faith in the attending doctor and the belief that modern medicine has a cure for any disease, no matter what the cause. Encouragement toward complete recovery is a well recognized therapeutic tool of medicine. This is as it should be but is the goal inadvertently set too high? Does the physician find it difficult to render a realistic appraisal of the limitations toward total recovery early in the period of convalescence?

For example, following acute care for a cerebrovascular accident with hemiplegia, the

patient usually will be left with a degree of permanent partial paralysis. While the physician is aware of the prognosis, its acceptance by the patient and his family is masked by the demand for tangible and objective evidence of continuous recovery. Time catches up and eventually, patient, family, and physician are faced with the fact that no further improvement can be attained. Has the opportunity for maximal recovery been lost by delay?

One of the purposes of a comprehensive rehabilitation program is to evaluate the nature and approximate extent of the sequelae of a disabling disease or injury, and establish a realistic goal toward which the patient, physician, and therapist can direct their efforts. Such acceptance often may require the aid of the social worker, psychologist, and psychiatrist, as well as the physical and occupational therapists. Recognition of the limits of benefit to be derived by physical therapy and allied disciplines is of prime importance in the rehabilitation of the patient.

There is a time early in the period of disability when the greatest benefit in rehabilitation can be attained. There is a time in the course of treatment when the maximum benefit of directed therapy and training has been reached. In fairness to the patient and his family this peak should be recognized as the outer limits of rehabilitative care. When they are recognized and accepted early in the care of the patient, emotional problems are minimized and a return to a useful though limited life can be attained more easily.

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Medical Director
Rehabilitation Institute of Chicago

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Distances of house calls

Medical Economics of February 17 reports that the typical house-call radius is 8 miles in urban and suburban areas, 10 miles in metropolitan areas, and 15 miles in rural regions. Surprisingly, all four areas report that the house call takes about 45 minutes including travel time both ways. Factors are traffic, open roads, and parking facilities.

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The Iowa Compromise

A recent editorial in the *Journal of the American Medical Association** summarizes the course of events leading to the 1957-1958 action on the Iowa hospital-doctor law. The decision rendered in Iowa, and the resultant action thereof, is of great importance to each physician, because of his relationship to the hospital and the effect of the action on the economics of hospital care and medical insurance programs.

To understand the problem it would be well to review the past history leading to this judicial decision in our neighboring state and how it might progress to changes in the pattern of Illinois medical economics.

When X-ray first came into use, a few physicians became so fascinated by this 20th century marvel they devoted full time to interpreting roentgenographic films. The diagnostic value of this agent has never been questioned and the emergence of the radiologic specialist was a natural event. However, the cost of the equipment and the physical plant necessary to conduct this work necessitated a great outlay of money. Although many physicians set up their own X-ray laboratories, the radiologist was in great demand. In medical centers he could manage his roentgenologic office on a profitable basis.

It was soon noted that technicians could be trained to take the films and care for the maintenance of equipment. The radiologist's value was in interpreting films and in fluoroscopy.

Later, as roentgen and radium therapy (and still later, isotope therapy) came into use, the roentgenologist directed this form of medical treatment.

In time, the hospital realized the need for X-ray equipment. It seemed relatively simple to set aside existing space for this work and to buy this equipment or receive it as a gift. One of the nurses or a similar employee could learn the technique and then function on a part time basis, taking films as needed. A roentgenologist could be employed as a consultant to read the films and report to the physicians.

This looked good to the X-ray specialist. His income would increase without any expense on his part. It was only a few hours per day and he could service several hospitals. For a while everyone was happy. But as the work in the X-ray department of the modern hospital mounted in scope and the number of patients examined and treated increased, the roentgenologist found he was devoting all his energy to supervising this department. Although his compensation rose he realized he was truly an employee of the hospital. As such, the hospital was in effect practicing medicine. The hospital determined the prices charged and billed the patient, administered the finances of the X-ray department, and decided on all questions as to space allotted, capital expenditures for equipment, and staff salaries. The roentgenologist was merely a consultant in these matters, on a salary.

As sometimes happens, the patient was

*166;374-375 [Jan. 25] 1958.

neglected financially. The cost of X-ray services was based upon the cost of equipment, rent for office space, maintenance expense, salaries, and a reasonable profit for the roentgenologist. This led to a standard of fees for X-ray services, dependent upon the community and the usual basic economic laws. When the hospital began utilizing X-rays, the established fees were utilized as the hospital's charge for this service. Since in most instances the equipment was a gift, the space was already available, and part-time employees were used to advantage, the profit margin—based on the accepted fee for X-ray studies as made elsewhere in the community—was great.

All this discouraged the roentgenologist. He disliked being a salaried employee, competing with his own private laboratory, and felt he was not being properly compensated. Since the roentgenologists were small in number their voice was not too well heard in organized medicine. A few were able to correct their own status by entering into a contract with the hospital, whereby they would be completely responsible for their own department, would receive all fees, and pay a percentage to the hospital for furnishing space and equipment.

During this time the pathologist was riding in the same boat. His arrangement with the hospital was to receive a retainer for doing autopsies and examining surgical specimens. As laboratory services developed the pathologist served as a consultant. He often trained one of the employees of the hospital to perform blood counts, urinalyses, and similar tests. As laboratory studies were done on all patients, several physicians performed their own tests or hired their own technicians. But again, the pathologist came to the front by forming his own clinical laboratory to provide such tests. His charge for these services was based upon his costs for capital expenditures, maintenance, chemicals, salaries, rent, and a reasonable return for his endeavors. Again, the hospital utilized his fees as their charges to the patient, not considering that much equipment was in the form of gifts, space was already available, and part-time employees could be used. The profit to the hospital from laboratory services has been great. The pathologist suffered in the same way as the radiologists and his rebellion has been identical.

When Blue Cross was started by the hospital association it was hoped this insurance would cover all hospital services. X-ray and laboratory services, being an essential part of the patient's care (and expense) were included. When Blue Shield was started by the medical association it was hoped this insurance would cover all medical services rendered to a hospitalized patient. A hospitalized patient, having both Blue Cross and Blue Shield, would then be relatively completely covered economically for expenses concerning both hospital and medical care.

Since it is the physician alone who renders medical care, and both the pathologist and the roentgenologist are physicians, we would expect that the pay for all such services would be through Blue Shield and not Blue Cross. This problem was brought to a head in Iowa in 1952.

In April of 1952, the House of Delegates of the Iowa State Medical Society passed a resolution requesting Blue Shield to investigate the possibility of extending its benefits to take over medical services that were being provided by Blue Cross. At the outset we must remember that the administrators of Blue Cross and Blue Shield are not deciding this problem. All they want is to make certain that the premium covers the cost and that the care provided is adequate and reasonable. They do not set the policy and have gone on record as doing just what their trustees and advisers direct. So let's keep this group on the side lines.

Numerous conferences were held between the officials of the Iowa State Medical Society and the Iowa Hospital Association. No agreement was reached. The Iowa Hospital Association would not concede that pathology and radiology were integral parts of the practice of medicine, and that these medical services belong in Blue Shield contracts rather than in Blue Cross.

On February 19, 1954 the Iowa Attorney General, on request of the Iowa Board of Medical Examiners, issued an opinion upholding the medical society's contention that pathology and radiology are integral parts of the practice of medicine.

The Iowa Hospital Association was unwilling to accept this interpretation of Iowa law and instigated a lawsuit in Polk County District Court on Jan. 31, 1955. The trial lasted 63 days. On Nov. 28, 1955 Judge Edwin C. Moore

handed down a decision upholding the Attorney General's interpretation of the Iowa law. On Dec. 28, 1955 the Iowa Hospital Association appealed this decision to the Iowa Supreme Court.

While the decision was under appeal, a series of conferences between medical society and hospital officials resulted in the preparation of a Joint Declaration on Hospital-Physician Relations, the Iowa Compromise. This agreement was approved by both groups on Nov. 15, 1956 and served as the basis of the 1957 Iowa General Assembly House File 21. This legislation became law on April 8, 1957.

This law establishes that:

1. A hospital cannot practice medicine in the State of Iowa.
2. It precludes an employer-employee relationship between a physician and a hospital.
3. It acknowledges that pathology and radiology are medical services.
4. It requires the inclusion of pathology and radiology in the medical service plan (Blue Shield) and not in the hospital plan (Blue Cross).
5. It requires that bills for pathology and radiology must be submitted in the name of the doctor.
6. It does not disturb the Polk County District Court decision which holds that corporations, including hospitals, cannot practice medicine in the State of Iowa.

Accordingly on May 29, 1957 the Iowa Hospital Association dismissed its appeal to the Supreme Court of Iowa. On July 8, 1957 all Iowa physicians and hospitals were notified of

the action and the provisions whereby coverage for pathology and radiology would be transferred to Blue Shield.

Effective Nov. 1, 1957 Blue Shield began providing pathology and radiology benefits to Blue Cross-Blue Shield members on the anniversary dates of their membership, and to new members in these groups: The premium paid by the public remained the same. This was possible because pathologists and radiologists agreed to accept Blue Shield allowances as payment in full. They have agreed further to underwrite any increase in Blue Shield administrative costs resulting directly from the transfer of these services from Blue Cross to Blue Shield.

Since these basic principles have been established in Iowa, the actual contractual agreements have been returned to the local level where agreements will be made to fit the local conditions. Each hospital is required to enter into agreements with physicians to direct and supervise the pathology and radiology departments. This requires actual rather than nominal supervision by physicians. "There is no question but that this unhampered supervision by physicians will enhance the expansion of these medical service departments, and the quality of medical care".

This sequence of events and the results thereof will be watched by all concerned in every state. The adoption of these principles by others should depend not necessarily on an interpretation of law, but rather on what proves to be best for the medical care of the patient. We in Illinois must remain alert to this situation, must study the results, and then base our course of action on what is best for the people of our state.

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CORRESPONDENCE



Clinics for crippled children

Twenty three clinics for Illinois' physically handicapped children have been scheduled for May by the University of Illinois, Division of Services for Crippled Children, in co-operation with local medical and health organizations, both public and private. Clinicians are selected among private physicians who are certified Board members. Any private physician may refer to or bring to a convenient clinic any child or children for whom he may want examination or consultative services.

May 1 — Sterling, Community General

May 2 — Chicago Heights (cardiac), St. James Hospital

May 6 — Casey, High School

May 6 — Macomb, Phelps Hospital

May 7 — Fairfield, Fairfield Memorial Hospital

May 7 — Hinsdale, Hinsdale Sanitarium

May 8 — Monticello, Lincoln School

May 8 — DuQuoin, Marshall-Browning Hospital

May 8 — Springfield, St. John's Hospital

May 13 — East St. Louis, St. Mary's Hospital

May 13 — Peoria, Children's Hospital (St. Francis)

May 13 — Pittsfield, Illini Community Hospital

May 14 — Joliet, Will County T.B. Sanitarium

May 15 — Elmhurst, Memorial Hospital of DuPage Co.

May 15 — Carlinville, Carlinville Area Hospital

May 15 — Rockford, Rockford Memorial Hospital

May 20 — Alton, Memorial Hospital

May 21 — Evergreen Park, Little Company of Mary Hospital

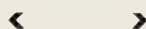
May 22 — Decatur, Decatur-Macon County Hospital

May 27 — Effingham (rheumatic fever), St. Anthony Hospital

May 27 — Peoria, Children's Hospital (St. Francis)

May 28 — Aurora, Copley Memorial Hospital

May 28 — Springfield (cerebral palsy), Memorial Hospital



Postgraduate course in cardiovascular diseases

The American College of Physicians will hold a postgraduate course in the diagnosis and treatment of cardiovascular diseases in the child and adult at the University of Illinois College of Medicine, 715 S. Wood Street, Chicago, May 12-16.

The intensive course is designed to provide the present day views concerning congenital and acquired heart disease. Participating will be faculty members from the five Chicago medical schools and from medical schools in other parts of the country. There will be clinical lectures, clinico-pathologist conferences, and panel discussions.

Further information may be obtained from

Mr. E. R. Loveland, executive secretary, 4200
Pine Street, Philadelphia 4.

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Illinois Obstetrical and Gynecological Society

HOTEL SHERMAN, CHICAGO

Sunday, May 18, Holiday Room No. 105

6:00 p.m. Dinner and council meeting

Monday, May 19, Jade Room No. 103

9:00 a.m. Business meeting

Scientific program:

9:30 Panel Discussion: "Premarital Counsel-
ing and Examination"

Thomas J. Conley, M.D., Park Ridge

James H. Skiles, Jr. M.D., Oak Park

10:00 "Hemorrhage"

Willard Scrivner, M.D., and members
of Maternal Welfare committee

10:30 Panel Discussion: "Abnormal Uterine
Bleeding"

Moderator: James H. McClure, M.D.,
Chicago

"Bleeding in Adolescence," William
W. Curtis, M.D., Springfield

"Bleeding in Childbearing Years,"

Richard W. Karraker, M.D., Moline

"Bleeding at or After the Meno-
pause,"

Vincent C. Freda, M.D., Chicago

11:15 "Problems of the Infertile Couple"

Melvin R. Cohen, M.D., Chicago.

Discussion: James McDonald, M.D.,
Chicago

W. R. Freeman, M.D., Champaign

12:30 p.m.: Luncheon, Room No. 107
(reservation required)

1:45 "New Drugs and the Practice of Obstet-
rics"

James H. McClure, M.D., Chicago

2:15 "Staphylococcal Infections"

Robert J. Hawkins, M.D., Chicago

Discussion: C. Otis Smith, M.D.,
Oak Park.

2:45 Panel Discussion: "Obstetric Analgesia
and Anesthesia"

Moderator: C. Otis Smith, M.D., Oak
Park

Carl Greenstein, M.D., Champaign

Alan Sampson, M.D., Oak Park

Andrew Esposito, M.D., Murphys-
boro

David Nelson, M.D., Anesthesiolo-
gist, La Grange

3:30 "Maternal Mortality — 1957"

Alan Sampson, M.D., Oak Park

All physicians are invited.

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Annual Clinical and Scientific Meeting The Illinois Surgical Society

Monday, May 19, 1958

Surgical Clinics — 8:00 a.m.

COOK COUNTY HOSPITAL, 7th Floor

Harrison and Wood Streets, Chicago

Gastrectomy — Peter Rosi, Surgeon

Discussants: Charles B. Puestow, Karl A.
Meyer, Lester R. Dragstedt

Fluids and Electrolytes — Earl O. Latimer,
Moderator

Discussants: Edwin A. Crowell, J. C. Thomas
Rogers

Unusual Surgical Cases — Paul B. Szantos,
Moderator

Discussants: Howard H. Hamlin, John B.
O'Donoghue, Jr.

Hand Clinic — John L. Bell, Moderator

Discussants: John H. Schnewind, David A.
Bennett

Open Reduction of Fractures — James J. Calla-
han

Carcinoma of the Lung — George W. Holmes

Discussants: James E. Graham, Peter L. Vin-
ciguerra, Hiram T. Langston

Colon Surgery — Nicholas J. Capos, Surgeon

Discussants: Kenneth H. Schnepf, Arkell M.
Vaughn

Injuries to Genitourinary System During Sur-
gery — Knowlton Barber

Discussants: Thomas B. Carney, William F.
Rose

Vaginal Hysterectomy — Herbert A. Schmitz,
Surgeon

Discussants: Clement P. O'Neill, Loring S.
Helfrich

Carcinoma of the Breast — Louis P. River, Sur-
geon

Discussants: Willis I. Lewis, Raymond J.
Kennedy

Split Thickness Skin Grafts — Harry A. Ober-
helman, Surgeon

Discussant: Ward H. Eastman

Obstructive Jaundice — Manuel E. Lichtenstein, Surgeon

Discussants: Everett P. Coleman, Howard P. Sloan

Chronic Relapsing Pancreatitis — Leon J. Aries, Surgeon

Discussants: W. James Gillesby, William Johnson

Mitral Commissurotomy — Egbert H. Fell and Milton Weinsberg, Surgeons

Discussants: Ormand C. Julian, Paul F. Fox, Robert A. DeBord

Colon Surgery — William M. McMillan, Surgeon

Discussants: Reginald M. Norris, Milton L. Goldberg

Arterial Transplantation for Obstruction — Richard H. Lawler, Surgeon

Discussants: James W. West, Francis W. Young

SCIENTIFIC MEETING

8:00 p.m.

Monday, May 19, 1958

UNIVERSITY CLUB

Monroe Street and Michigan Avenue

Regional Ileitis — John H. Garlock, New York — Columbia University Medical School

Discussants: R. Kennedy Gilchrist and Joseph B. Kirsner

Medical profession invited to all sessions.

OFFICERS

THE ILLINOIS SURGICAL SOCIETY, Inc.

President Raymond W. McNealy, Chicago

Vice President . . . James J. Callahan, Chicago

Secretary William M. McMillan, Chicago

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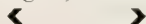
Karl A. Meyer, Chicago

Charles B. Puestow, Chicago

Kenneth H. Schnepf, Springfield

Howard P. Sloan, Bloomington

Arkell M. Vaughn, Chicago



The political machine triumphs because it is a united minority acting against a divided majority. — Will Durant

Annual Meeting Illinois Society of Anesthesiologists

Sunday, May 18, 1958

Hotel Sherman, Chicago

8:30 a.m. *Registration*—The Old Chicago Room, No. 101

9:30 a.m. *Scientific Program*

Panel Symposium: Economic Problems in the Practice of Anesthesia

Moderator: *William O. McQuiston, M.D.*, Peoria, Ill.

Panelists: *Wayne Slaughter, M.D.*, Professor and Head, Department of Plastic Surgery, University of Wisconsin Medical School and Professor of Surgery, Stritch School of Medicine.

Lindon Seed, M.D., Clinical Associate Professor of Surgery, University of Illinois College of Medicine.

Robert A. Beebe, M.D., Clinical Associate in Obstetrics and Gynecology, University of Illinois College of Medicine.

George Z. Wickster, M.D., Clinical Associate in Obstetrics and Gynecology, Loyola University School of Medicine.

Lawrence D. Ruttle, M.D., Director of Anesthesiology, St. Joseph Hospital, Joliet, Illinois.

12:30 p.m. *Luncheon* — Gold Room No. 114.

(\$3.60 per plate, including tax and gratuity)

Checks for reservation must be sent *before May 10* to Frank M. Grem, M.D. 546 N. Elmwood Ave., Oak Park, Ill. Make checks payable to Illinois Society of Anesthesiologists.

1:30 p.m. *Scientific Program* The Old Chicago Room

“Monitoring Devices in Pediatric Anesthesia”. — *M. Digby Leigh, M.D.*, Childrens Hospital Los Angeles, California

“The Role of the Anesthesiologist in the Treatment of Coronary Disease”—*Kenneth K. Keown, M.D.*, Professor of Anesthesiology, University of Missouri School of Medicine, Columbia, Mo.

Business Meeting and Election of Officers to Follow Scientific Program

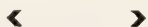
James A. Felts, M.D., President

Clifford A. Baldwin Jr., M.D., Secy-Treas.

Mass casualty care course

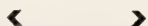
The Army Medical Service School, Brooke Army Medical Center, Fort Sam Houston, Tex., offers a one week orientation course on the management of mass casualties. The agenda includes nuclear weapon effects, ways of planning for the sorting and treatment of large numbers of casualties, and the role of civil defense in both natural and military disasters.

The course is open to a limited number of civilian physicians, state and local public health officials, and the personnel of certain federal agencies. Information may be obtained from the surgeon general, Department of the Army, Washington 25.



American Goiter meeting

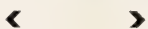
The American Goiter Association will hold its annual meeting in San Francisco, June 17-19. Papers and discussions will deal with the physiology and disease of the thyroid gland. Information may be obtained from Dr. John C. McClintock, secretary, American Goiter Association, 1491½ Washington Avenue, Albany 10.



O. & G. board examination

The next scheduled examinations (part II), oral and clinical, of the American Board of Obstetrics and Gynecology will be held at the Edgewater Beach Hotel, Chicago, May 7-17. Candidates will be notified of their eligibility.

Current bulletins of the board may be obtained from Dr. Robert L. Faulkner, secretary-treasurer, American Board of Obstetrics and Gynecology, 2105 Adelbert Road, Cleveland 6.



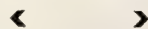
Intensive course in neuromuscular diseases

The Cook County Graduate School of Medicine announces a two week course in neuromuscular diseases of children with special attention to cerebral palsy, to be given by Dr. Meyer A. Perlstein, July 7-18.

This will be an intensive didactic and clinical course for pediatricians, orthopedists, neurologists, psychiatrists, and physiatrists interested in the care of children with neuromuscular handicaps. Emphasis will be placed on the practical clinical aspects of treatment and rehabilitation procedures. The course will include trips to demonstration clinics and treatment centers. The

\$250 fee for the course will include transportation and accommodations during the field trips. Registration is limited.

For further information, write to Mr. John W. Neal, registrar, Cook County Graduate School of Medicine, 707 S. Wood Street, Chicago.

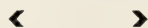


Student AMA meeting to have scientific exhibits

For the first time, the annual Student American Medical Association convention, to be held in Chicago from May 1-4, will have a scientific exhibit section.

With the support of Lakeside Laboratories, Inc., Milwaukee, the SAMA is launching a competitive program, open to undergraduate medical students, interns, and residents. Medical students are offered an opportunity to present their exhibits at the convention and to win prizes of \$500, \$350, or \$250. A separate award of \$500 is offered to an intern or resident whose exhibit is judged the most significant contribution.

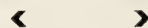
In addition to the cash awards, the two \$500 winners also will receive a free trip to San Francisco in June where they will show their exhibits at the annual convention of the AMA.



Accident prevention program formulated

A joint action program to prevent accidents and improve the care of accident victims was announced by the American College of Surgeons, National Safety Council, and American Association of the Surgery of Trauma.

The program will include: (1) public education in accident prevention and handling of the injured; (2) safety plans for local communities; (3) registration of unusual cases of injury; (4) investigations of emergency care of traffic injuries; (5) model legislation to require adequate training of ambulance attendants, policemen, and firemen in first aid and transportation of the injured; (6) co-operation in the production and improvement of training materials and instructional aids dealing with handling of the injured.



Try to forget yourself in the service of others. For when we think too much of ourselves and our own interests, we easily become despondent. But when we work for others, our efforts return to bless us. — Sidney Powell

PRELIMINARY PROGRAM
for the
One Hundred Eighteenth
ANNUAL MEETING
of the
ILLINOIS STATE MEDICAL SOCIETY



Hotel Sherman **May 20, 21, 22, 23, 1958**

Chicago

PROGRAM SUMMARY

TUESDAY, MAY 20

- 9:00 House of Delegates, Louis XVI Room
- 9:00 Obstetrics & Gynecology, Crystal Room
- 9:00 Anesthesiology, Old Chicago Room No. 101
- 9:00 Cardiovascular Disease, Old Chicago Room No. 101
- 9:00 Eye, Ear, Nose & Throat, Ruby Room No. 113
- 12:00 Luncheon — Fifty Year Club, Assembly Room
- 12:00 Luncheon — Anesthesiologists, Old Chicago Room No. 101
- 1:30 General Assembly, The Ballroom
- 3:30 Radiology, Crystal Room
- 6:30 Public Relations Dinner, George Bernard Shaw Room

WEDNESDAY, MAY 21

- 9:00 Pediatrics, Louis XVI Room
- 9:00 Surgery, Crystal Room
- 9:00 Physicians' Association, Old Chicago Room No. 101
- 9:00 Eye, Ear, Nose & Throat, Ruby Room No. 113
- 10:00 REFERENCE COMMITTEES: (8)
- 12:00 Pediatric Luncheon, Louis XVI Room
- 12:00 Academy of General Practice, Assembly Room

- 1:30 General Assembly, The Ballroom
- 7:00 Annual Dinner, The Ballroom

THURSDAY, MAY 22

- 8:00 Woman Physicians' Breakfast, Orchid Room No. 106
- 9:00 House of Delegates, Louis XVI Room
- 9:00 Ill. Chapter, Am. College of Chest Physicians, Crystal Room
- 9:00 Preventive Medicine & Public Health, Assembly Room
- 9:00 Dermatology, Old Chicago Room No. 101
- 9:00 Medicine, Gold Room No. 114
- 9:00 Allergy, Jade Room No. 103
- 12:00 Preventive Medicine & Public Health Luncheon, Assembly Room
- 12:00 Dermatology, Old Chicago Room No. 101
- 12:00 Chest Physicians, Orchid Room No. 106
- 12:00 Phi Chi Luncheon, Life Room No. 108
- 1:30 General Assembly, Ballroom
- 6:00 Loyola Alumni Dinner, Crystal Room
- 8:30 House of Delegates, Louis XVI Room

FRIDAY, MAY 23

- 9:00 Pathology, Louis XVI Room
- 12:00 Luncheon, Crystal Room
- 1:30 Association of Blood Banks, Louis XVI Room

House of Delegates

(1) Tuesday, May 20

9:00 a.m. The first meeting of the House of Delegates will be called to order by the president, Lester S. Reavley, for:

The reports of officers, councilors, committees, etc., and supplementary reports were indicated.

The introduction of resolutions, and the transaction of any other business which may come before the House.

THE COMMITTEE ON CREDENTIALS will meet at 8:00 a.m. Tuesday morning, May 20, in the entrance way to the Louis XVI Room. Delegates desiring to be certified as the official representatives of their county medical societies must present their CREDENTIAL CARD to this committee.

(2) Thursday, May 22

9:00 a.m. The second meeting of the House of Delegates will be called to order by

the president to hear those reports of Reference Committees ready to be presented.

(3) Thursday, May 22

8:30 p.m. The third (and last) meeting of the House of Delegates will be called to order by the president to hear the remaining reports of Reference Committees:

For the election of officers, councilors, committee members, delegates and alternate delegates to the American Medical Association, and

For the transaction of any other business to come before the House.

At the close of this last meeting, Raleigh C. Oldfield will be installed as the new president of the Illinois State Medical Society, and will receive the official gavel from the retiring president, Lester S. Reavley.

Programs for Tuesday, May 20, 1958

SECTION ON OBSTETRICS AND GYNECOLOGY

Chairman Vincent C. Freda, Chicago
Secretary Ralph N. Redmond, Sterling

Tuesday Morning, May 20, 1958
Crystal Room

9:00 PANEL — "BLEEDING WITH PREGNANCY"

MODERATOR: — Newton DuPuy, Quincy

Bleeding, First Half of Pregnancy, E. Harold Ennis, Springfield

Bleeding, Second Half of Pregnancy, Armand J. Mauzey, Elmhurst

Postpartum bleeding, James H. McClure, Chicago

10:00 "THE TREATMENT OF THE BLADDER, Postoperatively, following Gynecological Surgery"

Thomas R. Wilson, Urbana

10:20 "ENDOCRINOLOGY OF PUBERTY, the Normal and Variations"

Aaron E. Kanter, Chicago

10:40 "OVARIAN TUMORS"

Mark C. Wheelock, Chicago

11:00 Election of 1959 section officers and business meeting

ADJOURNMENT TO VIEW EXHIBITS

SECTION ON ANESTHESIOLOGY

Chairman Herman J. Nebel, East St. Louis
Secretary Arthur T. Shima, Oak Park

Tuesday Morning, May 20, 1958
Old Chicago Room No. 101

Panel symposium in co-operation with the
SECTION ON CARDIOVASCULAR DISEASE

See Section on Cardiovascular Disease for program details.

Section on Anesthesiology will meet at the close of the scientific program for the election of officers for the Section for 1959.

A luncheon for the members of this Section has been scheduled at the noon hour. The luncheon will adjourn by 1:30 so that members of the Section can attend the General Assembly in the Ballroom.

SECTION ON CARDIOVASCULAR DISEASE

Chairman George C. Sutton, Evanston
Secretary .. Edward W. Cannady, East St. Louis

Tuesday Morning, May 20, 1958
Old Chicago Room No. 101

Panel symposium in co-operation with the
Section on Anesthesiology

9:00 FILM: "Resuscitation for Cardiac Arrest"

9:20 "SHOCK OF CARDIAC ORIGIN"

Robert P. Gilbert, Assistant Professor of Medicine, Northwestern University Medical School, Chicago

9:35 "TOXIC EFFECTS OF DRUG THERAPY IN CARDIOVASCULAR DISEASE"

Arnold S. Moe, East St. Louis, President, Illinois Heart Association

9:50 "ATHEROSCLEROSIS AND LIPID METABOLISM"

Nelson W. Barker, Professor of Medicine, Mayo Foundation Graduate School, University of Minnesota, Rochester

10:10 "EXPERIENCE IN PEORIA WORK CLASSIFICATION UNIT"

Joint presentation by: James Walsh, Peoria, Henry Wilson, Peoria

10:25 "CARDIOPULMONARY DISEASE"

James A. Campbell, Professor of Medicine, University of Illinois College of Medicine, Chicago

10:40 INTERMISSION TO VIEW EXHIBITS

11:00 PANEL SYMPOSIUM WITH SECTION ON ANESTHESIOLOGY

"SURGICAL CONSIDERATIONS IN PERIPHERAL VASCULAR DISEASE"

Nelson W. Barker, Professor of Medicine, Mayo Foundation Graduate School, University of Minnesota, Rochester

Kenneth E. Kewon, Professor of Anesthesia, University of Missouri Medical School, Columbia

John H. Olwin, Clinical Assistant Professor of Surgery, University of Illinois College of Medicine, Chicago

Business meeting and election of 1959 Section Officers.

SECTION ON EYE, EAR, NOSE AND THROAT

Chairman Pierce W. Theobald, Chicago
Secretary Charles L. Pannabecker, Peoria

Tuesday Morning, May 20, 1958
Ruby Room No. 113

OTOLARYNGOLOGY

9:00 "INFECTIOUS MONONUCLEOSIS"

J. J. Potter, Rockford

9:20 "MANAGEMENT OF FOREIGN BODIES IN FOOD AND AIR PASSAGES"

Robert Knight, Bloomington

9:40 "REPAIR OF MAXIOFACIAL INJURIES BY OPEN REDUCTION: Adams Technique"

Vern Alder, Danville

- 10:00 Recess
 10:10 "PARAPHARYNGEAL ABSCESS"
 W. M. S. Ironside, Chicago
 William de Vos, Chicago
 10:30 "EARLY EXPERIENCES WITH TYM-
 PANOPLASTY"
 Wiley H. Harrison, Chicago
 11:00 Business session and election of 1959
 Section Officers
 ADJOURNMENT TO VIEW EXHIBITS

LUNCHEONS SCHEDULED FOR TUESDAY NOON, MAY 20, 1958

FIFTY YEAR CLUB LUNCHEON — The Assembly Room on the Mezzanine Floor.

Dr. Andy Hall, chairman of the Fifty Year Club since its formation in 1937, will preside again this year at the annual complimentary luncheon honoring the members of the Fifty Year Club.

He has made arrangements for Dr. Percival Bailey, Professor of Neurology and Neurological

Surgery, and Clinical Professor of Psychiatry at the University of Illinois College of Medicine to speak at the luncheon.

All physicians who have been in the practice of medicine for fifty years or more will be guests of the Illinois State Medical Society at one of the most popular social functions held during the annual meeting.

Tickets for the luncheon are complimentary and may be secured at the ticket desk during the day (Tuesday) or from Doctor Hall.

SECTION ON ANESTHESIOLOGY:—

Old Chicago Room No. 101

The Section on Anesthesiology has planned a luncheon for members of the Section. Reservations should be made through the Section officers, or tickets should be purchased Tuesday morning so that the correct number of reservations can be made with the Hotel Sherman. The price of the luncheon will be \$3.50 and will include the tax and tip.

General Assembly

Tuesday Afternoon, May 20, 1958
 The Ballroom

Presiding Herman J. Nebel, East St. Louis
 Assisting Theodor J. Lang, Rockford

- 1:30 Opening of the General Assembly
 Lester S. Reavley, President, Sterling
 1:40 "ANESTHETIC COMPLICATIONS"
 M. Digby Leigh, Los Angeles, California, Chief of Anesthesiology, Children's Hospital, Associate Professor of Surgery (Anesthesiology), University of Southern California School of Medicine
 2:00 "ROENTGEN EVALUATION OF THE SOFT TISSUES IN ORTHOPEDICS"
 Everett L. Pirkey, Louisville, Kentucky, Professor and Chairman, Department of Radiology, University of Louisville School of Medicine; Director, Department of Radiology, Louisville General Hospital
 2:20 "SURGICAL TREATMENT OF ANEURYSMS OF THE AORTA"
 Ormand C. Julian, Chicago, Associate Professor of Surgery, University of Illinois College of Medicine; Attending Surgeon, Presbyterian-St. Luke's Hospital
 2:40 INTERMISSION TO VIEW EXHIBITS
 Assisting George C. Sutton, Evanston
 3:30 "DIAGNOSIS AND TREATMENT OF ACUTE PERIPHERAL ARTERIAL OCCLUSION"
 Nelson W. Barker, Rochester, Minnesota, Professor of Medicine, Mayo

Foundation Graduate School, University of Minnesota

3:50 "CAUSTIC STRICTURES OF THE ESOPHAGUS"

Paul H. Holinger, Chicago, Professor of Bronchoesophagology, Department of Otolaryngology, University of Illinois College of Medicine; Attending Bronchoesophagologist, Presbyterian-St. Luke's Hospital, and Children's Memorial Hospital

Kenneth C. Johnston, Chicago, Clinical Associate Professor of Bronchoesophagology, Department of Otolaryngology, University of Illinois College of Medicine; Associate Attending Bronchoesophagologist, Children's Memorial Hospital, Attending Bronchoesophagologist, Presbyterian-St. Luke's Hospital

4:10 "DIAGNOSIS AND TREATMENT OF ACUTE PANCREATITIS"

E. Clinton Texter, Jr., Chicago, Assistant Professor of Medicine, and Chief of the Gastroenterology Laboratory and Clinics, Northwestern University Medical School; Chief of the Gastroenterology Service and Director of the training program in Gastroenterology, V.A. Research Hospital, Northwestern University Medical Center; Attending physician, Passavant Memorial Hospital

SECTION ON RADIOLOGY

Chairman Theodor J. Lang, Rockford
Secretary William Meszaros, Chicago
Tuesday Afternoon, May 20, 1958
Crystal Room
3:30 The guest moderator of the film reading

session of the Section on Radiology will be Everett L. Pirkey, Director of Radiology, University of Louisville School of Medicine.

Following the film reading session the hospital-ity hour will be held.

Public Relations Dinner

Tuesday Evening, May 20, 1958
George Bernard Shaw Room
6:30 o'clock

The seventh Public Relations Dinner, sponsored by the Committee on Medical Service and Public Relations of the Illinois State Medical Society, will be held.

Dr. F. J. L. Blasingame, General Manager of the American Medical Association, will be the speaker. Dr. Blasingame's subject will be "It's Your AMA," a topic which will be of great in-

terest to all members and to medical society executives in particular.

Any member of the Illinois State Medical Society interested in any phase of public relations will be most welcome. Members of the Woman's Auxiliary also are invited. Tickets for the dinner will be \$3.50 each, including tip. Reservations should be made in advance through the Society's Chicago office, 185 N. Wabash Avenue, Chicago 1 (Financial 6-0443).

Programs for Wednesday, May 21, 1958

SECTION ON EYE, EAR, NOSE AND THROAT

Chairman Pierce W. Theobald, Chicago
Secretary Charles L. Pannabecker, Peoria

Wednesday Morning, May 21, 1958
Ruby Room No. 113

OPHTHALMOLOGY

- 9:00 "SURVEY OF READING AND WORK-
ING DISTANCE IN PRESBYOPIA"
Robert Cannon, Galesburg
- 9:20 "PRINCIPLES OF LID SURGERY"
F. Bruce Fralick, Ann Arbor, Michi-
gan, Professor of Ophthalmology,
University of Michigan Medical
School
- 10:00 Recess
- 10:10 "CORNEAL SURGERY IN COMPLI-
CATED CASES"
Howard L. Wilder, Chicago
- 10:30 "ADVANCES IN MEDICAL TREAT-
MENT OF GLAUCOMA"
William Middleton, Alton
- 10:50 "SOME OCULAR ASPECTS OF HY-
PERTHYROIDISM"
Frank W. Newell, Chicago
- 11:10 INTERMISSION TO VIEW EXHIBITS

SECTION ON PEDIATRICS

Chairman A. R. Eveloff, Springfield
Secretary Lawrence Breslow, Chicago

Wednesday Morning, May 21, 1958
Louis XVI Room

- 9:00 "BRAIN DAMAGED CHILDREN"
Milton C. Bauman, Springfield, Medi-

cal Director, Springfield Mental
Health Center.

- 9:20 "MANAGEMENT OF THE POSITIVE
TUBERCULIN REACTOR"

Eugene T. McEnery, Chicago, Clinical
Associate Professor Pediatrics,
Stritch School of Medicine, Loyola
University

- 9:40 "PYELONEPHRITIS IN CHILDREN:
Diagnosis and Treatment"

Jack Metcoff, Chicago, Chairman, Di-
vision of Pediatrics, Michael Reese
Hospital

- 10:00 "PSYCHOLOGICAL ASPECTS OF
FEEDING IN CHILDREN"

Harry Bakwin, New York City, Profes-
sor of Clinical Pediatrics, New York
University Medical School

- 10:00 INTERMISSION TO VIEW EXHIBITS

- 11:00 PANEL — "THE 1957-1958 EPIDEMIC
OF INFLUENZA"

MODERATOR: Mark H. Lepper, Chi-
cago, Professor of Preventive Medicine,
University of Illinois College of Medi-
cine

"Virology and Immunology"

Howard J. Shaughnessy, Ph.D., Chi-
cago, Professor and Head of De-
partment, University of Illinois
College of Medicine, Deputy Di-
rector, State Department of Public
Health

"Non-Pulmonary Complications"

Bessie L. Lendrum, Chicago, Asso-
ciate in Pediatrics, Michael Reese
Hospital

"Pulmonary Complications"

Mark H. Lepper, Chicago, Professor of Preventive Medicine and Head of Department, University of Illinois College of Medicine

"Surgical Complications"

Saul A. Mackler, Chicago, Clinical Associate Professor of Thoracic Surgery, Chicago Medical School

11:45 Business meeting and election of 1959 Section Officers.

The Illinois Chapter, American Academy of Pediatrics will have a luncheon meeting served in the Louis XVI Room for members of the Chapter and guests. The luncheon will adjourn in time to attend the General Assembly at 1:30 p.m.

SECTION ON SURGERY

Chairman Richard H. Lawler, Chicago
Secretary Reginald M. Norris, Jacksonville

Wednesday Morning, May 21, 1958
Crystal Room

9:00 "GASTRIC LYMPHOSARCOMA"

Kent W. Barber, Quincy
Robert W. Taylor, Quincy

9:15 "LYMPHANGIOSARCOMA. L A T E
COMPLICATION OF MASTECT-
OMY"

Robert Patton, Springfield

9:30 PANEL SYMPOSIUM — "TUMORS OF
THE BREAST" — Diagnosis, Path-
ology and Treatment

MODERATOR: Howard P. Sloan,
Bloomington

"Benign Tumors of the Breast" — J.
C. Thomas Rogers, Urbana

"Malignant Tumors of the Breast" —
Louis P. River, Oak Park, Professor
of Surgery, Stritch School of Medi-
cine

"Radiation Therapy" — Peter A. Nel-
son, Chicago, Associate Professor of
Surgery, Stritch School of Medicine

"Pathology of Diseases of the Breast"
— Harry A. Oberhelman, Chicago,
Professor and Chairman, Depart-
ment of Surgery, Stritch School
of Medicine

10:45 PANEL SYMPOSIUM — "EPIGAS-
TRIC PAIN" — Diagnosis, Pathology
and Treatment

MODERATOR: Everett P. Coleman, Can-
ton, Past President, Western Surgical
Association

"Gall Bladder and Bile Ducts" — John
T. Reynolds, Chicago, Associate Pro-
fessor of Surgery, University of Illi-
nois College of Medicine

"Pancreas" — Charles B. Puestow,
Chicago, Professor of Surgery, Uni-
versity of Illinois College of Medi-
cine

"Stomach" — Peter A. Rosi, Chicago,
Professor of Surgery, Cook County
Graduate School of Medicine; As-
sociate Professor of Surgery, North-
western University Medical School
"Esophagus" — William J. Gillesby,
Hines, Attending Surgeon, Veterans
Administration Hospital

12:00 Business meeting and the election of Sec-
tion officers for 1959.

**PHYSICIANS' ASSOCIATION
of the
DEPARTMENT OF PUBLIC WELFARE
State of Illinois**

Wednesday Morning, May 21, 1958
Old Chicago Room No. 101

CHAIRMAN: Werner Tuteur, Clinical Direc-
tor, Elgin State Hospital

10:00 "PSYCHOTHERAPY AND RELIGION"

Rev. Clarence L. Bruninga, Protestant
Chaplain, Elgin State Hospital, Elgin

"RORSCHACH STUDY AND DIFFER-
ENTIAL DIAGNOSIS"

Philip Bower, Ph.D., Chief Supervising
Psychologist, Elgin State Hospital,
Elgin

"PLACEBO EFFECT IN TRANQUIL-
IZER THERAPY"

A. Barron, Galesburg
R. Edwalds, Galesburg

Galesburg State Hospital, Galesburg

"A CASE OF JAUNDICE AND AGRAN-
ULOCYTOSIS DUE TO CHLOR-
PROMAZINE"

Werner Tuteur, Elgin

Geoffrey Kent, Elgin

Rochus Stiller, Elgin State Hospital,
Elgin

A luncheon for the physicians and their wives is
being planned. Announcement of the time and
place will follow.

**LUNCHEONS SCHEDULED FOR
WEDNESDAY NOON, MAY 21, 1958**

Illinois Chapter, AMERICAN ACADEMY OF
PEDIATRICS — Louis XVI Room

Following the meeting of the Section on Pedi-
atrics on Wednesday morning, luncheon will be
served in the Louis XVI Room for members of
the Illinois Chapter of the American Academy of
Pediatrics, and any others interested in attending.

The luncheon will adjourn in time for the open-
ing of the General Assembly at 1:30 at which will
be presented the President's Address, the Address
in Medicine and the Address in Surgery.

Illinois Chapter, AMERICAN ACADEMY OF
GENERAL PRACTICE — Assembly Room
Mezzanine 11:45

The Illinois Academy of General Practice has

made arrangements to have a luncheon meeting again this year during the annual meeting of the Illinois State Medical Society.

All physicians are welcome to attend; members of the Academy are especially invited to be present.

Officers of the Illinois Chapter are:
President A. I. Doktorsky, Chicago

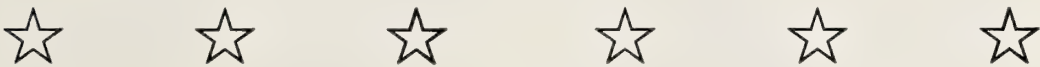
President Elect Robert E. Heerens, Rockford
Vice President . Clinton D. Swickard, Charleston
Treasurer C. G. Sachtleben, Chicago
Executive Secretary .. H. Marchmont-Robinson, Chicago

PHYSICIANS' ASSOCIATION, Department of Public Welfare, Luncheon. Details to be announced.

General Assembly

Wednesday Afternoon, May 21, 1958
The Ballroom
Presiding Richard H. Lawler, Chicago
Assisting William H. Wehrmacher, Chicago
1:30 The President's Address:
Lester S. Reavley, Sterling
2:00 The Annual Address in Medicine: "THE PLACE OF ORAL HYPOGLYCEMIC AGENTS IN THE MANAGEMENT OF DIABETES"
Alexander Marble, Boston, Massachusetts, Assistant Clinical Professor of Medicine, Harvard Medical School; Physician, Joslin Clinic and New England Deaconess Hospital; First Vice President, American Diabetes Association
2:30 The Annual Address in Surgery: "HYPERTENSION — DRUGS AND SURGERY"
Keith S. Grimson, Durham, North Carolina, Professor of Surgery, Duke University School of Medicine

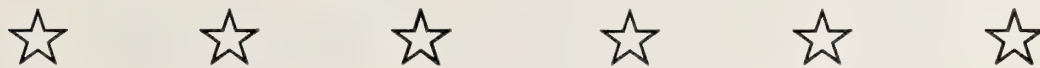
3:00 INTERMISSION TO VIEW EXHIBITS
Presiding A. R. Eveloff, Springfield
Assisting Lawrence Breslow, Chicago
3:30 "POISONING CONTROL PROGRAM IN ILLINOIS"
Joseph R. Christian, Chicago, Professor, Department of Pediatrics, Stritch School of Medicine of Loyola University; Mercy Hospital and La-Rabida Sanitarium
3:50 "O C U L A R MANIFESTATIONS OF GENERAL DISEASE"
F. Bruce Fralick, Ann Arbor, Michigan, Professor of Ophthalmology, University of Michigan Medical School
4:10 "DISTURBANCES OF BLADDER AND BOWEL CONTROL IN CHILDREN"
Harry Bakwin, New York City, Professor of Clinical Pediatrics, New York University; Visiting Physician, Bellevue Hospital; Attending Pediatrician, University Hospital.



The Annual Dinner

Wednesday Evening, May 21, 1958
The Ballroom
7:00 o'clock
The annual dinner this year will honor Dr. Lester S. Reavley of Sterling, the retiring president of the Illinois State Medical Society. The toastmaster will be the immediate past president, Dr. F. Lee Stone of Chicago.
For the fourth year the Health Progress Awards will be presented by the president to the individual and the group contributing in an outstanding manner to the health and welfare of the citizens of Illinois.
The dinner speaker this year will be Dr. Carl

S. Winters, appearing through the courtesy of General Motors. Doctor Winters served as Crime Commissioner of Michigan; he served for five years as Chairman of the Skid Row Commission of Chicago, advisor on the Juvenile Board of Sheriff Lohman of Cook County, and for 19 years as minister of the First Baptist Church of Oak Park. The subject of his talk will be announced later.
The past presidents and guests will be introduced by the toastmaster, Doctor Stone, and the President's Certificate will be presented to Doctor Reavley by the Chairman of the Council, Dr. H. Close Hesselstine.



Programs for Thursday, May 22, 1958

WOMEN PHYSICIANS' BREAKFAST

Thursday Morning, May 22, 1958

Orchid Room No. 106

8:00

On Thursday morning, May 22, the women physicians registered at the 1958 annual meeting will be guests of the Illinois State Medical Society at a complimentary breakfast meeting.

This annual breakfast has been held for several years, and the women physicians have enjoyed a short program before the scientific sessions open at 9:00 o'clock.

The committee in charge this year is:

Chairman Augusta Webster, Chicago

Vice Chairman Bertha Isaacs, Chicago

Gertrude M. Engbring, Chicago

Rose V. Menendian, Chicago

Edna Z. Mortimer, Joliet

Mary Louise Newman, Jacksonville

Tickets may be secured at the official ticket desk on the mezzanine floor until closing hour on Wednesday afternoon, May 21.

SECTION ON ALLERGY

Chairman Helen C. Hayden, Chicago

Secretary George Frauenberger, Evanston

Thursday Morning, May 22, 1958

Jade Room, No. 103

9:00 "INSECT ALLERGY"

Alan R. Feinberg, Chicago

9:20 "DIFFERENTIAL DIAGNOSIS OF BRONCHIAL ASTHMA IN INFANCY AND CHILDHOOD"

Jerome Glaser, Rochester, New York,
Clinical Associate Professor of Pediatrics,
University of Rochester
School of Medicine

9:45 "PRACTICAL MANAGEMENT OF ALLERGIC DISEASES"

Ray F. Beers, Jr., Chicago

10:10 Short recess

10:15 PANEL — "ALLERGY IS CHANGING"

This panel is based solely on questions submitted by the audience. Please submit them before or during the meeting to the moderator.

MODERATOR: Max Samter, Allergy Unit, University of Illinois College of Medicine 840 South Wood Street, Chicago 12, Illinois

Abraham L. Aaronson

Samuel M. Feinberg

Ben Z. Rappaport

David W. Talmage

11:15 Business meeting and election of 1959 Section Officers

11:30 ADJOURNMENT TO VIEW EXHIBITS

SECTION ON MEDICINE

Chairman ... William H. Wehrmacher, Chicago

Secretary Charles F. Downing, Decatur

Thursday Morning, May 22, 1958

Gold Room No. 114

9:00 "THE MANAGEMENT OF PATIENTS WITH ACUTE INFECTIOUS HEPATITIS"

Richard D. Eckhardt, Chicago, Chief,
Medical Service, Veterans Administration West Side Hospital

(9:15 Discussion period)

9:20 "A CLINICAL TEST FOR RECOGNITION OF CHEST AND ABDOMINAL PAIN DUE TO ESOPHAGITIS"

Robert Fruin, Hines, Veterans Administration Hospital

(9:35 Discussion period)

9:40 "DYNAMIC EQUILIBRIUM OF RED CELL PRODUCTION"

Clifford Gurney, Chicago, Department of Medicine, University of Chicago College of Medicine

(9:55 Discussion period)

10:00 "STAPHYLOCOCCAL PNEUMONIA"

William T. Couter, Decatur, The Decatur Clinic

(10:15 Discussion period)

10:20 INTERMISSION TO VIEW EXHIBITS

10:50 "SUICIDAL POISONINGS"

Frank B. Norbury, Jacksonville, The Norbury Sanatorium

(11:05 Discussion period)

11:10 "PRACTICAL ASPECTS OF INFLUENZA VACCINATION"

Alton J. Morris, Springfield, Formerly, Department of Medicine, University of Colorado

(11:25 Discussion period)

11:30 "COMMON KIDNEY DISEASES"

John M. Coleman, Chicago, Vaughn Medical Center

(11:45 Discussion period)

11:50 "AORTIC STENOSIS — DIAGNOSTIC CONSIDERATION"

Donald Edgren, Rockford

(12:05 Discussion period)

12:10 Election of Section officers for 1959

SECTION ON DERMATOLOGY

Chairman Samuel J. Zakon, Chicago

Secretary John M. McCuskey, Peoria

THURSDAY MORNING, May 22, 1958

Old Chicago Room No. 101

9:00 Chairman's Address: "JAMES NEVINS HYDE, Pioneer Chicago Dermatologist"

Samuel J. Zakon, Chicago, Chairman,
Section on Dermatology

9:15 To be announced.

9:30 **PANEL — “THE DIAGNOSIS AND TREATMENT OF LIGHT SENSITIVE DERMATOSES”**

This panel will discuss the diagnosis and management of the increasing number of light sensitive dermatoses.

MODERATOR: Herbert Rattner, Chicago, Professor and Chairman, Department of Dermatology, Northwestern University Medical School

Otto C. Stegmaier, Jr., Davenport, Iowa
Jerome F. Sickley, LaSalle

Arthur L. Shapiro, Chicago, Assistant Professor of Dermatology, Chicago Medical School

Anthony C. Cipollaro, New York City, Professor and Director, Department of Dermatology and Syphilology, New York Polyclinic Medical School and Hospital

10:30 **INTERMISSION TO VIEW EXHIBITS**

11:00 **PANEL — “DIAGNOSIS AND TREATMENT OF DISEASES OF THE SCALP”**

MODERATOR: James Herbert Mitchell, Chicago, Rush Clinical Professor Emeritus of Dermatology, University of Illinois College of Medicine

Irene Neuhauser, Chicago, Clinical Associate Professor of Dermatology, University of Illinois College of Medicine

Allan L. Lorincz, Chicago, Associate Professor of Dermatology, University of Chicago College of Medicine

Harold Shellow, Chicago, Clinical Associate Professor of Dermatology, University of Illinois College of Medicine

Julius E. Ginsberg, Chicago, Associate Professor of Dermatology, Northwestern University Medical School

Anthony C. Cipollaro, New York City, Professor and Director, Department of Dermatology and Syphilology, New York Polyclinic Medical School and Hospital

12:00 **LUNCHEON — for members of the Section and their guests.**

BUSINESS SESSION — and election of 1959 Section Officers

ADJOURNMENT in time to attend General Assembly in Ballroom at 1:30

SECTION ON PREVENTIVE MEDICINE AND PUBLIC HEALTH

Chairman Jackson P. Birge, Rock Island

Secretary Herbert S. Miller, Winnetka

Thursday Morning, May 22, 1958

Assembly Room

9:00 **“ACCIDENTAL POISONING — EVERYONE’S PROBLEM!”**

Joseph R. Christian, Chicago, Professor, Department of Pediatrics, Stritch School of Medicine, Loyola University; Chairman, Poison Control Committee, Illinois Chapter, American Academy of Pediatrics

9:25 **“THE COUNTY MEDICAL SOCIETY — HEALTH DEPARTMENT PARTNERSHIP IN PENNSYLVANIA”**

James D. Weaver, Erie, Pennsylvania, Vice President, Pennsylvania Academy of General Practice; President, Pennsylvania Health Council, Inc.

9:55 **“ADULT VACCINATION”**

Mark H. Lepper, Chicago, Professor and Head of Department, Preventive Medicine, University of Illinois College of Medicine

10:15 **“TONOMETRY AND THE PREVENTION OF BLINDNESS”**

E. A. Pushkin, Chicago, Assistant Professor of Clinical Ophthalmology, University of Illinois College of Medicine

10:45 **Business session and election of 1959 section officers.**

11:00 **ADJOURNMENT TO VIEW EXHIBITS**

12:00 **LUNCHEON — Section on Preventive Medicine and Public Health Illinois Academy of Preventive Medicine Illinois Association of Medical Health Officers Illinois Chapter, American Association of Public Health Physicians PROGRAM: “What Every Health Officer Should Know about Radiation”**

Warren W. Furey, Chicago, Clinical Professor of Roentgenology, Stritch School of Medicine, Loyola University

Illinois Chapter

AMERICAN COLLEGE OF CHEST PHYSICIANS

THURSDAY MORNING, May 22, 1958
Crystal Room

9:00 a.m.

Murray Kornfeld, Executive Director of the American College of Chest Physicians will cooperate with the Illinois Chapter in providing the program for the scientific session Thursday morning, May 22, in the Crystal Room.

At 12:00 noon a luncheon and business meet-

ing will be held in the Orchid Room, No. 106 for the members of the Chapter.

The scientific program will appear in the final program to be published in the May issue of the Illinois Medical Journal.

LUNCHEONS SCHEDULED FOR THURSDAY NOON, May 22, 1958

GROUP LUNCHEON — Illinois Academy of Preventive Medicine Section on Preventive Medicine and Public Health Illinois Association of Medical Health Officers Illinois Chapter, American Association of Public Health Physicians

12:00 noon in the Assembly Room on the Mezzanine Floor.

Program — Warren W. Furey, Chicago

Tickets available at the ticket desk until 11:00 a.m. on Thursday.

The price will be \$3.50 and tax and tip are included.

Illinois Chapter, AMERICAN COLLEGE OF CHEST PHYSICIANS — Orchid Room No. 106, Business meeting of the Illinois Chapter follows the scientific program held Thursday morning.

SECTION ON DERMATOLOGY — luncheon for members of the section and their guests. Business meeting and the election of 1959 section officers. Old Chicago Room, No. 101, following the scientific program.

PHI CHI LUNCHEON — Life Room No. 106, The Phi Chi fraternity will have a luncheon meeting on Thursday noon. Dr. Jacob E. Reisch, Springfield, editor of the Phi Chi Bulletin, will be in charge of plans. All members of the fraternity are welcome, and reservations can be made by writing to Doctor Reisch, 1129 South Second Street, Springfield.

General Assembly

THURSDAY AFTERNOON, MAY 22, 1958

The Ballroom

Presiding Helen C. Hayden, Chicago
Assisting Vincent C. Freda, Chicago

1:30 "THE PRESENT STATUS OF DERMATOLOGIC X-RAY THERAPY"

Anthony C. Cippollaro, New York, Professor and Director, Department of Dermatology, New York Polyclinic Medical School and Hospital; Associate Professor of Medicine (Dermatology), Cornell University Medical School.

1:50 "DIFFERENTIAL DIAGNOSIS OF ECZEMATOID DERMATOSES IN INFANCY AND CHILDHOOD"

Jerome Glaser, Rochester, New York, Clinical Associate Professor of Pediatrics, University of Rochester School of Medicine

2:10 "CONSERVATION OF THE OVARY"

Clyde L. Randall, Buffalo, New York, Professor of Obstetrics and Gynecology, University of Buffalo Medical School; Consultant in Gynecology, J. N. Adam Memorial Hospital, Perrysburg, New York; Consultant in Obstetrics and Gynecology, Douglas Memorial Hospital, Fort Erie, Ontario

2:30 INTERMISSION TO VIEW EXHIBITS

Presiding James W. Henry, Evanston

Assisting Jackson P. Birge, Rock Island

3:10 "RADIOISOTOPES AS PRACTICAL DIAGNOSTIC AIDS"

Oscar B. Hunter, Jr., Washington, D. C., Adjunct Professor of Clinical Pathology, American University; President, American Association of Blood Banks.

3:30 "MEDICAL ASPECTS OF MAN IN SPACE"

Norman Lee Barr, Capt. U.S.N., M.C., Washington, D. C. Director for Aviation Medicine Research and Deputy Director for Medical Research, Department of the Navy

3:50 "THE GENERALIST VIEWS PUBLIC HEALTH"

James D. Weaver, Erie, Pennsylvania, Vice-President, Pennsylvania Academy of General Practice; President, Pennsylvania Health Council, Inc.

4:10 "MANAGEMENT OF THE HYPERCHOLESTEROLEMIC PATIENT"

William B. Parsons, Jr., Madison, Wisconsin, Director of Research, Jackson Clinic

Programs for Friday, May 23, 1958

SECTION ON PATHOLOGY

Chairman James W. Henry, Evanston
Secretary Frederick C. Bauer, Jr., Chicago

FRIDAY MORNING, MAY 23, 1958

Louis XVI Room

JOINT MEETING ILLINOIS SOCIETY OF PATHOLOGISTS ILLINOIS ASSOCIATION

OF BLOOD BANKS NORTH CENTRAL
REGION, COLLEGE OF AMERICAN
PATHOLOGISTS

with the

SECTION ON PATHOLOGY,
Illinois State Medical Society

9:00 "ABC'S OF ISOTOPES IN MEDICINE"
Austin Brues, Chicago

Questions and Answers

10:15 "A.E.C. AND ECONOMIC REQUIRE-
MENTS FOR AN ISOTOPE LAB-
ORATORY"
Donalee L. Tabern, Ph.D. North Chi-
cago

10:45 INTERMISSION

11:15 "THE PATHOLOGIST AND THE ISO-
TOPE LABORATORY"
Oscar B. Hunter, Jr., Washington,
D. C., Adjunct Professor of Clinical

Pathology, American University;
President, American Association of
Blood Banks.

Questions and Answers

12:00 LUNCHEON in the Crystal Room
BUSINESS MEETING — Illinois Society
of Pathologists

2:00 "THE ROLE OF A BLOOD BANK IN
AN ISOTOPE LABORATORY"
Oscar B. Hunter, Jr., Washington,
D. C.

Questions and Answers

3:00 "METHODOLOGY AND DEMONSTRA-
TIONS OF RADIOISOTOPES"
Donalee L. Tabern, Ph.D. North Chi-
cago

Questions and Answers

4:30 BUSINESS MEETING — Illinois Asso-
ciation of Blood Banks

1958 Technical Exhibitors

Abbott Laboratories, Booth 2
Arnar-Stone Laboratories, Inc., Booth 28
Audio-Digest Foundation, Booth 4
The Baker Laboratories, Inc., Booth 74
Baxter Laboratories, Inc., Booth 77
Blue Cross-Blue Shield, Booths 42 and 43
The Book House for Children, Booth 55
Borcherdt Company, Booth 62
Bristol Myers Products Division, Booth 33
Brooks Appliance Company, Inc., Booth 5
Brownberry Ovens, Inc., Booth 63
Chicago Pharmacal Company, Booth 68
Ciba Pharmaceutical Products, Inc., Booth 47
The Coca-Cola Company, Booth 17
Daniels Surgical & Medical Supplies, Booths 15,
16 and 17
Desitin Chemical Company, Booth 27
Doho Chemical Corporation, Booth 32
Eaton Laboratories, Booth 3
Eisele & Company, Booth 7
Emanem Laboratories, Booth 39
Encyclopedia Britannica, Booth 58
E. Fougere & Company, Inc., Booth 25
Geigy Pharmaceuticals, Booth 66
Jackson-Mitchell Pharmaceuticals, Inc., Booth 48
Johnson & Johnson, Booth 73
Lederle Laboratories, Booth 6
Eli Lilly and Company, Booth 31
J. B. Lippincott Company, Booth 59
Lloyd Brothers, Inc., Booth 13
Loma Linda Food Company, Booth 21
P. Lorillard Company, Booths 56 and 57
S. E. Massengill Company, Booth 18
Medical Aids, Inc., Booth 72

Medical Protective Company, Booth 75
Medical Surgical Service of Illinois, Booth 36
Merck, Sharp & Dohme, Booth 64
The C. V. Mosby Company, Booth 76
V. Mueller & Company, Booth 79
Nordmark Pharmaceutical Laboratories, Inc.,
Booth 20
Hermien Nusbaum & Associates, Booth 26
Parke, Davis & Company, Booth 71
Parker, Aleshire & Company, Booth 9
Pfizer Laboratories, Booth 61
Professional Management, Booth 22
Purdue Frederick Company, Booth 36
Reed & Carnrick, Booth 44
R. J. Reynolds Company, Booth 46
A. H. Robins Company, Booth 38
J. B. Roerig & Company, Booth 24
Sanborn Company, Booth 29
W. B. Saunders Company, Booth 69
Schering Corporation, Booth 65
G. D. Searle & Company, Booth 70
7-Up Developers' Assn. of Illinois, Booth 1
Sherman Laboratories, Booth 45
E. R. Squibb & Sons, Booth 19
Standard Process Laboratories, Booth 34
R. J. Strassenburgh Company, Booth 60
Thermo-Fax Sales Corporation, Booths 11 and 12
S. J. Tutag & Company, Booth 35
United States Tobacco Company, Booth 37
The Upjohn Company, Booth 67
Wallace Laboratories, Booth 8
Westwood Pharmaceuticals, Booth 78
Winthrop Laboratories, Booth 10

Technical Exhibitors

1958 Annual Meeting ABBOTT LABORATORIES

Booth 2

Members of the medical profession will be cordially welcomed at Abbott Laboratories' exhibit of leading specialties and new products. Our representatives will be available at the exhibit to give information on the products and to answer any questions you may have.

ARNAR-STONE LABORATORIES, INC.

Booth 28

Featuring Americaine Tropical anesthesia, containing 20% dissolved benzocaine in ointment and aerosol form, including the new three ounce Americaine Aerosol for individual patient use. Americaine with Neomycin is also available, in which is combined, for the first time, an antibiotic and a topical anesthetic to relieve pain. Silicote Skin Protective Ointment, and the new Silicote Liquid Spray, containing 30% of the dramatic silicones, will be displayed and clinical studies are available reporting on excellent results for protection of the skin.

AUDIO-DIGEST FOUNDATION

Booth 4

Audio-Digest Foundation — a subsidiary of the California Medical Association — gives the busy physician an effortless tour through the best of current medical literature each week. This medical tape-recorded "newscast" — compiled and reviewed by a professional Board of Editors — may be heard in the physician's automobile, home or office. The Foundation also offers medical lectures by nationally-recognized authorities.

THE BAKER LABORATORIES, INC.

Booth 74

You are invited to visit our booth where Baker's Modified Milk and Varamel, two successful products for infant feeding, are on display. Baker representatives will be glad to discuss with you the special features of Baker Milk products which promote better tolerance, less colic, better gain and improved tissue turgor for bottle-fed infants.

BAXTER LABORATORIES, INC.

Booth 77

Baxter Laboratories, Inc. presents the latest developments in parenteral fluids and administration equipment. See INCERT — the only one-step sterile additive vial for supplementing parenteral fluids with B vitamins with C, succinylcholine chloride, and electrolytes. No needle or syringe necessary.

Inspect TRAVAD — ready-to-use disposable enema unit featuring a pre-lubricated tip, 18 inches of flexible tubing and finger tip volume control.

BLUE CROSS — BLUE SHIELD

Booths 42 and 43

THE BOOK HOUSE FOR CHILDREN

Booth 55

Our exhibit will consist of the finest child development books on the market today, including "By BOOK HOUSE", "My TRAVELSHIP" "A PICTURESQUE TALE OF PROGRESS", and "JUNIOR INSTRUCTOR", along with supplementary volumes. This program provides not only intellectual but emotional development, so it is related to the child's physical well-being. Free advertising material available.

BORCHERDT COMPANY

Booth 62

Borchardt is featuring a new use for its Malt Soup Extract. In addition to stool softening properties, Malt Soup Extract has been found useful for the problem of Pruritus Ani. Stop in for information and a recently presented paper on this new use. Information on the influence of aciduric intestinal flora in correction of constipation and relief of pruritus ani is available.

BRISTOL-MYERS PRODUCTS DIVISION

Booth 33

BUFFERIN, the better-tolerated antacid-analgesic for long-term salicylate therapy, will be featured by Bristol-Myers. Also on view will be AMMENS Medicated Powder, a highly efficacious dispersion of talc in cornstarch; and new THERADAN, for long-lasting relief of seborrhea of the scalp.

BROOKS APPLIANCE COMPANY, INC.

Booth 5

The Brooks Appliance Company will exhibit and describe in detail the technique of applying the combination pressure bandages. The moist medicated Primer Bandage plus the Dalzoflex Elastic Adhesive which are used in treating leg ulcers and phlebitis.

Orthopedic Supports — Dr. Hackett "C" Sacral Belts — Peerless "C" Sacral Belts — Elastic Stockings — Knee Supports — Myo Cervical Collar — Nulast Elastic Crepe Bandages and Surgical Instruments will also be displayed.

BROWNBERRY OVENS, INC.

Booth 63

A Brownberry Ovens hostess in the quaint costume of the firm's trademark girl will be serving hot buttered toast. See the country cupboard filled with delicious bread, made of the finest home-style ingredients.

Of special interest to physicians are:

—The DARK WHEAT LOAF, made of northern hard spring wheat, ground fresh daily in the firm's home plant in Oconomowoc, Wisconsin

—and the **BALANCED PROTEIN LOAF**, a delicious high-quality protein bread.

CHICAGO PHARMACAL COMPANY

Booth 68

The following Chimedie specialties are features: **URISED**, the dual-action tablet providing both thorough antisepsis and soothing sedation in all types of genito-urinary affections; **ESTROSED**, the logical yet inexpensive formula in tablet form of ethinyl estradiol and reserpine for calm and comfortable treatment of the menopausal syndrome; plus a complete line of injectables, ointments, and liquids awaiting your inspection.

CIBA PHARMACEUTICAL PRODUCTS INC.

Booth 47

CIBA is exhibiting **Vioform-Hydrocortisone Cream**, an extremely effective preparation for controlling a wide variety of acute and chronic skin disorders. It is antifungal, antibacterial, anti-inflammatory and antipruritic — a fourway means for providing relief of itching and inflammation and rapid healing. Moreover, it is effective where many antibiotic combinations fail.

THE COCA-COLA COMPANY

Booth 17

Ice-cold Coca-Cola served through the courtesy and co-operation of the Coca-Cola Bottling Company of Chicago, Inc., Chicago, Illinois and The Coca-Cola Company.

DANIELS SURGICAL & MEDICAL SUPPLIES

Booths 15, 16 and 17

DANIELS on the north end of the exhibition hall will feature this year the newest and most modern type of medical furniture and equipment.

Such lines as **HAMILTON'S** with their application of formica and stainless steel to their newest examining room furniture. All exteriors, surfaces, are of formica with stainless steel working surfaces.

RITTER'S "time saving and energy saving" electrically operated examining table. **GURDICK'S**, **EKG** and portable ultra sonic unit. **LIEBEL FLARSHEIM'S BMR**, a completely new and distinctly different approach to metabolism testing; **BOVIE** electrosurgical units and diathermy units. **CASTLE** and **AMERICAN'S** Hi-Speed Autoclaves. **STRYKER'S** electrosurgical unit and cast cutter plaster-vac. **WELCH ALLYN'S** new wall transformer unit and accessory illuminated diagnostic instruments. **CLAY ADAM'S** micro hematocrit centrifuge and accessories. **AMERICAN OPTICAL'S** Hb hemoglobinometer and Microscopes.

DESITIN CHEMICAL COMPANY

Booth 27

On display at the Desitin Booth will be: **DESITIN OINTMENT**, the pioneer cod liver oil oint-

ment; **DESITIN POWDER**, the pioneer cod liver oil dusting powder; **DESITIN HEMORRHOIDAL SUPPOSITORIES**, to relieve pain and itching and promote healing; **RECTAL DESITIN OINTMENT**, for effective relief in simple hemorrhoids; **DESITIN LOTION**, soothing, protective and mildly astringent, and **DESITIN COSMETIC AND NURSERY SOAP**, supermild, non-allergenic, pleasantly scented and deodorant.

DOHO CHEMICAL CORPORATION

Booth 32

Doho Chemical Corporation is pleased to exhibit **AURALGAN**, ear medication in otitis media; **OTOSMOSAN**, effective, non-toxic fungicidal and bactericidal; **RHINALGAN**, nasal decongestant; **NEW LARYLGAN**, soothing throat spray and gargle.

Mallon Chemical Corporation, a subsidiary of the Doho Corporation, is also featuring **RECTALGAN**, liquid topical anesthesia; **DERMOPLAST**, aerosol freon propellant spray for fast relief of surface pain.

EATON LABORATORIES

Booth 3

Now for the hospitalized patients, lifesaving **Furadantin®** Intravenous Solution — for severe urinary tract infections when peroral administration of Furadantin is not feasible and for serious infections as septicemia (bacteremia) when the bacterium is sensitive.

Postmenopausal urethritis yields promptly to new **Furestrol^{T.M.}** Suppositories. Provides estrogen to reverse the involutional changes of senile urethritis, plus the antibacterial, anesthetic and gently dilating action of **Furacin** Urethral Suppository.

An advance in the treatment of vaginitis — **Tricofuron®** Improved Vaginal Suppositories and Powder. Simple two-step treatment. Rapid relief of burning and itching often within 24 hours.

EISELE & COMPANY

Booth 7

Eisele & Company will display their line of hypodermic syringes both regular and interchangeable; hypodermic needles, clinical thermometers, **ECO** Bandages, and specialty glassware.

EMANEM LABORATORIES, INC.

Booth 39

The Emanem exhibit will feature **Dutex**, the new, unique retention douche. **Dutex** offers an entirely new concept for more effective therapy in the wide variety of common vaginal conditions. **Dutex** offers these distinct advantages: (1) gradual distention of the vagina and exposure of the entire vaginal wall to a therapeutic solution, (2) retention of solution to achieve exposure unobtainable by any other available method. **Dutex** is safe and comfortable for patients to use. Rep-

representatives will be in attendance to answer your questions. Literature available.

ENCYCLOPEDIA BRITANNICA

Booth 58

E. FOUGERA & COMPANY, INC.

Booth 25

E. Fougera & Company, Inc., cordially invites physicians to visit their booth where products in the fields of cardiology, dermatology and radiology will be displayed.

Professional personnel will be present to discuss these products and supply clinical materials if desired.

GEIGY PHARMACEUTICALS

Booth 66

The GEIGY exhibit will feature MEDOMIN — the hypnotic which provides “natural” sleep, and BUTAZOLIDIN and BUTAZOLIDIN-ALKA — potent non-hormonal anti-arthritis and anti-inflammatory agent also effective in the treatment of superficial thrombophlebitis.

Also on display will be PRELUDIN — non-amphetamine appetite suppressant virtually without CNS stimulation, STEROSAN-HYDROCORTISONE Cream and Ointment — for comprehensive control of a wider range of dermatoses, and SINTROM — potent oral anticoagulant with intermediate duration of action.

JACKSON-MITCHELL PHARMACEUTICALS, INC.

Booth 48

Jackson-Mitchell Pharmaceuticals are exhibiting the new powdered goat milk, as well as MEYENBERG EVAPORATED GOAT MILK which is being fortified with Vitamin B₁₂, B₆ and folic acid. MEYENBERG EVAPORATED and POWDERED GOAT MILK are the natural substitutes wherever there is a cow's milk allergy.

HI-PRO, our high protein, low fat powdered cow's milk, will also be exhibited.

JOHNSON & JOHNSON

Booth 73

Johnson & Johnson will display the latest improvements in surgical dressings, as developed by the Johnson & Johnson Research Laboratories. In addition, Johnson's Elastic Hosiery and Johnson's Baby Products will be exhibited. You will find well-informed representatives pleased to discuss these products or provide information on any other items made available by the world's largest manufacturer of surgical dressings and baby products.

LEDERLE LABORATORIES DIVISION

Booth 6

You are cordially invited to visit the Lederle Booth where our medical representatives will be in attendance to provide the latest information and literature available on our line.

Featured will be Achromycin V, together with many other of our dependable quality products.

ELI LILLY AND COMPANY

Booth 31

You are cordially invited to visit the Lilly exhibit located in booth number 31. The Lilly sales people in attendance welcome your questions about Lilly products and recent therapeutic developments.

J. B. LIPPINCOTT COMPANY

Booth 59

J. B. Lippincott Company presents, for your approval, a display of professional books and journals geared to the latest and most important trends in current medicine and surgery. These publications, written and edited by men active in clinical fields and teaching, are a continuation of more than 100 years of traditionally significant publishing.

LLOYD BROTHERS, INC.

Booth 13

RONCOVITE, DOXINATE, and DOXINATE with DANTHRON, original products of Lloyd research, will be featured at this display. Lloyd representatives will present the latest clinical studies on RONCOVITE, the first true hematoopoietic stimulant as well as the complete story of DOXINATE, the new non-laxative method of preventing and treating constipation.

LOMA LINDA FOOD COMPANY

Booth 21

With the background of years of experience in perfecting a hypoallergenic milk powder, and also a newly developed concentrated liquid milk, the protein of which is fully derived from the soybean and formulated with other essential additives to care for the needs of babies, growing children and adults, the Loma Linda Food Company will be happy to welcome you to their exhibit.

Attendants will be pleased to discuss the values of Soyalac powder and concentrated liquid. Samples of this flavorful product will be served at the exhibit.

P. LORILLARD COMPANY

Booths 56 and 57

P. Lorillard Company invites you to visit the Kent Cigarette Exhibit. We are presenting the Story of Kent Cigarettes and their unique filter which is claimed to be more efficient than any other now on the market according to several independent research groups.

A table cigarette box with your signature in gold will be a pleasant souvenir of your visit to the convention.

THE S. E. MASSENGILL COMPANY

Booth 18

Best wishes from Massengill to the members of the Illinois State Medical Society for a most suc-

cessful and informative meeting! Should you so desire, capable Massengill representatives would be pleased to discuss with you any Massengill product in which you are interested. Products being featured are Adrenosem (the unique systemic hemostat); Homagenets (the only solid homogenized vitamins); Obedrin (superior weight reducing aid); The Salcort Family (offering a complete range in arthritic therapy; Saferon (the peptonized iron); Massengill Powder (the douche preparation of choice). Literature and samples will be available.

MEDICAL AIDS, INC.

Booth 72

Medical Aids, Incorporated, will feature a complete line of pressure bandages, including the well-known DALZOFLEX and PRIMER Combination, recommended in the treatment of leg ulcers, phlebitis, etc.; the NULAST Elastic Crepe bandage constructed of Viscolax rubber threads; DALMAS elastic strapping which is waterproof, oil and grease resistant; DALMAPLAST Plastic adhesive strapping; LITENET and CLAYS elastic stockings.

THE MEDICAL PROTECTIVE COMPANY

Booth 75

MALPRACTICE PROPHYLAXIS — "Professional Protection Exclusively" by The Medical Protective Company achieves new records of security for the doctor. Complete program of PREVENTION, DEFENSE and PROPER PROTECTION AGAINST LOSS has reduced average per capita incidence of suits to less than one-third that of 30 years ago. "Specialized Service makes our doctor safer".

MEDICAL-SURGICAL SERVICE OF ILLINOIS

Booth 36

Doctor, be sure to stop and pick up your "Blue Boutonniere from Blue Shield" each day.

MERCK SHARP & DOHME

Booth 64

A new and very promising diuretic is featured at the Merck Sharp & Dohme booth. Since the principal action of "DIURIL" is a marked enhancement of the excretion of sodium, chloride and water, it has been designated a saluretic agent. This new compound achieves a profound electrolyte and water diuresis without attendant toxic effects and other disadvantages peculiar to the mercurials and certain other diuretic agents.

Technically trained personnel will be present to discuss this and other subjects of clinical interest.

THE C. V. MOSBY COMPANY

Booth 76

The C. V. Mosby Company will exhibit their complete line of medical texts and reference books

and journals. Included among the new releases will be Sherman-Kessler "Allergy in Pediatric Practice"; Williamson "Practical Use of Office Laboratory and X-Ray"; Patton "Pediatric Index"; Miale "Laboratory Medicine — Hematology"; Allen "Strabismus Ophthalmic Symposium II"; Stephenson "Cardiac Arrest and Resuscitation" and Modell "Drugs of Choice".

V. MUELLER & COMPANY

Booth 79

The V. Mueller & Company exhibit will feature, principally, an interesting selection of fine surgical instruments — both standard and special — of particular importance to the general surgeon. A number of new items and specialties will be included in the display which is always a worthwhile attraction.

NORDMARK PHARMACEUTICAL LABORATORIES, INC.

Booth 20

LEVONOR, a new compound for suppression of appetite without C.N.C. overstimulation, will be featured. The smooth action of LEVONOR permits its use during evening hours; it may be given as late as 8:00 p.m. without interfering with sleep.

Also, recent reprints of clinical studies on FERONORD will be available. Ferroglycine sulfate provides more rapid hemoglobin response with virtually no undesirable side-effects.

HERMIEN NUSBAUM AND ASSOCIATES

Booth 26

In Booth 26 physicians will find items of interest to doctors for their own family use as well as for every type of patient. LIFEBUOY SOAP with germicide TMTD; TUCKS the ready-to-use witch-hazel pads; TFL flexible, disposable clinic droppers; MAROC powder and ointment ideal for prevention and cure of diaper rash, bed sores; full line of EVENFLO infant feeding equipment (premature nipples, nipple covers for hospital sterilization, superplastic boilable bottles, drink-ups, a transient bottle top for children as well as for postoperative pediatric cases and also for geriatric feeding).

PARKE, DAVIS & COMPANY

Booth 71

Medical service members of our staff will be in attendance at our exhibit to discuss important Parke-Davis specialties which will be on display.

PARKER, ALESHIRE & COMPANY

Booth 9

Administrators of the special sickness and accident plan for members of the Illinois State Medical Society.

Over \$770,000.00 has been paid in claim benefits to insured members since the inception date, April 1, 1947. Your membership entitles you to apply for this successful plan.

You are cordially invited to visit our booth

and ask our representatives for information about NEW NON-CONFINING PROTECTION recently made available. This exceptional income protection is a "MUST" for every complete disability program.

PFIZER LABORATORIES

Booth 61

The Pfizer exhibit spotlights its recent and original therapeutic concepts represented by SIGNEMYCIN V CAPSULES, a combination of oleandomycin and tetracycline phosphate buffered; Signemycin I.V.; ATARAXOID, the first ataraxic-corticoid; TETRABON V, the orange flavored phosphate buffered tetracycline syrup; MAGNACORT and NEO-MAGNACORT, the first water soluble corticoid; and LINODOXINE CAPSULES and EMULSION, the new Pfizer hypocholesterolemic agent.

PROFESSIONAL MANAGEMENT

Booth 22

PM — Your full time Professional Management — invites you to visit with our staff and discuss the importance of a well-ordered and carefully executed business program.

Present day economics demand that the *business side of medicine* be given more careful attention than ever before.

For over 25 years PM has provided business counsel and management service exclusively for physicians and dentists.

THE PURDUE FREDERICK COMPANY

Booth 30

The Purdue Frederick Company will feature: SENOKOT Tablets and Granules — a new non-bulk, non irritating constipation corrective which produces normal gentle defecation and rehabilitation of the constipated bowel through physiologic resensitization of Auerbach's plexus.

PRE-MENS — the multidimensional pathogenesis of the premenstrual tension syndrome requires multidimensional therapeutic approach.

SIPPYPLEX — Comprehensive therapy for total peptic ulcer therapy combining modern therapeutics with the fundamental principles of the Sippy regimen.

COLPOTAB — Safe and effective antibiotic trichomonacide.

CHLOROGIENE — Chlorophyll dchette for routine vaginal hygiene.

REED & CARNRICK

Booth 44

Members and their guests are cordially invited to see the display of: ALPHOSYL Lotion — a dramatic advance in topical therapy for psoriasis; TARCORTIN (hydrocortisone plus tarbonis) for acute, subacute, and chronic dermatoses; and NEO-TARCORTIN (tarcortin plus neomycin) when infections are present or anticipated.

R. J. REYNOLDS TOBACCO COMPANY

Booth 46

Welcome to the R. J. Reynolds Tobacco Company exhibit! You are cordially invited to receive a cigarette case (monogrammed with your initials) containing your choice of CAMEL, WINSTON Filter, Menthol Fresh SALEM, or CAVALIER King Size Cigarettes.

A. H. ROBINS COMPANY

Booth 38

The A. H. Robins exhibit spotlights DIME-TANE, the new and unexcelled antihistamine (available in Tablets, Elixir and long-acting Extentabs), and ROBAXIN, the important new skeletal muscle relaxant, synthesized in the Robins Research Laboratories.

Representatives in attendance at the booth will also be happy to discuss the therapeutic advantages of ALLBEE with C, AMBAR and DON-NATAL PLUS or other Robins prescription items.

J. B. ROERIG AND COMPANY

Booth 24

The J. B. Roerig and Company booth 24 will feature their "Peace of Mind" tranquilizer, ATARAX, brand of hydroxyzine. Its chemical structure is entirely different than others currently on the market, and it is reported to be "probably the safest". Co-featured with ATARAX will be BONADOXIN TABLETS, the Anti-emetic which stops nausea and vomiting of pregnancy and controls post-anesthetic nausea and postradiation sickness. Literature and samples available at the booth, which you are cordially invited to visit.

SANBORN COMPANY

Booth 29

Featured at the Sanborn exhibit will be the new and outstandingly successful Model 300 VISETTE — a complete electrocardiograph of full diagnostic accuracy that weighs only 18 pounds. The familiar Model 51 Viso-Cardiette will also be available for comparison — as well as the famous Sanborn Metabulator.

For those interested in research, full data will be available regarding Sanborn Recording Systems (single and multi-channel; direct, photographic and tape), Monitoring Oscilloscopes, and Transducers.

W. B. SAUNDERS COMPANY

Booth 69

Larry Parker will again be on hand to display the complete Saunders' line. Among some of the newest books of special interest are: Andresen, "Office Gastroenterology"; Higgins & Orr, "Orr's Operations of General Surgery"; Beckman, "Drugs—Their Nature, Action and Use"; Levine, "Clinical Heart Disease"; Welch & Powers, "The Essence of Surgery"; Novak, "Gynecologic & Obstetric Pathology"; "Current Therapy, 1958"; Wechsler, "Textbook of Neurology" and the ever

new "Medical, Surgical, and Pediatric Clinics of North America".

SCHERING CORPORATION

Booth 65

The Schering exhibit will feature TRILAFON, extremely potent tranquilizer and antiemetic, capable of alleviating manifestations of emotional stress without apparent dulling of mental acuity.

Extraordinary potency in behavioral effects without corresponding increase in autonomic hematologic or hepatic side effects provides a favorable therapeutic ratio and excellent versatility in clinical use.

G. D. SEARLE & COMPANY

Booth 70

You are cordially invited to visit the Searle booth where our representatives will be happy to answer any questions regarding Searle Products of Research.

Featured will be Enovid, the new synthetic steroid for treatment of various menstrual disorders; Zanchol, a new biliary abstergent; Nilevar, the new anabolic agent, and Rolicton, a new safe, non-mercurial oral diuretic.

Also featured, will be Vallestiril, the new synthetic estrogen with extremely low incidence of side reactions; Pro-Banthine, the standard in anticholinergic therapy; and Dramamine, for the prevention and treatment of motion sickness and other nauseas.

7-UP DEVELOPERS' ASSOCIATION OF ILLINOIS

Booth 1

The organizations that bottle and deliver sparkling, crystal-clear 7-Up to the people of Illinois will be represented in Booth 1. They will be ready at all times to provide the fresh, clean taste of chilled 7-Up for thirsty conventioners.

SHERMAN LABORATORIES

Booth 45

The Sherman Laboratories will display:

ELIXOPHYLLIN. Severe asthmatic attacks are not merely relieved, but *terminated* in 10 to 20 minutes by Elixophyllin, given *orally*. In milder attacks, its speed has been described as "instantaneous". Vital capacity increases were noted as soon as 5 minutes after administration. Pick up these data and reports on their clinical significance at the Sherman booth.

PERSISTIN. A long-acting non-narcotic analgesic. Prescribed as a single dose, Persistin provides therapeutic salicylate levels for 5 to 8 hours and permits avoidance of narcotics and hypnotics for many patients.

E. R. SQUIBB & SONS

Booth 19

E. R. Squibb & Sons has long been a leader in development of new therapeutic agents for

presentation and treatment of disease. The results of our diligent research are available to the medical profession in new products or improvements in products already marketed.

At the Squibb booth we are pleased to present up-to-date information on these advances for your consideration.

STANDARD PROCESS LABORATORIES

Booth 34

The control of growth, health and vitality by protomorphogens. A protomorphogen is a cell secretion given off by all living cells, at all times, in minute amounts, that promotes the synthesis of protein for cell repair and cell maintenance, after which it is absorbed by the cell. All living proteins carry a protomorphogen by which the protein is made specific in nature, specific in function and specific in causing organic reactions.

R. J. STRASENBURGH COMPANY

Booth 60

You can get the details as to how Strasenburgh's unique and completely original ionic release principle ('Strasonic' release) makes possible: Cough Suppression for 8-12 hours with a *single dose* of 'Tussionex' Appetite Suppression for 10-12 hours with a *single dose* of 'Bipheta-mine'. Visit Booth No. 60. You are cordially invited.

THERMO-FAX SALES CORPORATION

Booths 11 and 12

Yes, anyone in your office can make itemized patient statements at the touch of a button. Key to this Instant Electric Billing is the THERMO-FAX "Secretary" Model Copying Machine. With it, your billing job will take two hours — not two days!

Will you grant us just a few minutes to prove that this new product of 3M research can ease your work load, increase income and efficiency just as it has done for so many other doctors?

We cordially invite you to see a demonstration in our exhibit.

S. J. TUTAG & COMPANY

Booth 35

S. J. Tutag Company will exhibit GERITAG, a geriatric formula at their booth 35. Recent publications have attested to the advantage and efficacy of the 20 to 1 ratio of Androgen to Estrogen in the treatment of the ever-present "aging" problem.

Geritag formula embodies this very relationship plus a vital range of 9 vitamins, 10 minerals, Rutin and 3 lipotropic agents.

These advantages are available in both the capsule and parenteral form — necessary to forestall progressive decline of physical vigor.

UNITED STATES TOBACCO COMPANY

Booth 37

The United States Tobacco Company will dis-

play it famous line of SANO tobacco products: Sano Cigarettes — both regular and king size filter tip; Sano All-Havana Cigars and Sano Pipe Tobacco — all with less than 1% nicotine by weight. SANO meets the nicotine problem in the only effective way, by removing the nicotine from the tobacco itself before SANO tobacco products are made. Sano cigarettes, cigars and pipe tobacco for good sense and good taste.

THE UPJOHN COMPANY

Booth 67

Professional representatives of The Upjohn Company are eager to contribute to the success of your meeting. We are here to discuss with you the products of Upjohn research that are designed to assist you in the practice of your profession. We solicit your inquiries and comments.

WALLACE LABORATORIES

Booth 8

Wallace Laboratories will feature these drugs: MILTOWN — a proven tranquilizer. MILTOWN relieves both anxiety and muscle tension. Its toxicity is low, side effects minimal and it is well-suited for prolonged therapy.

MEPROSPAN. The new meproamate prolonged release capsules for "round the clock"

relaxation of mind and muscle on half the dosage.

WESTWOOD PHARMACEUTICALS

Booth 78

FOSTEX CREAM and FOSTEX CAKE are new, easy to use, therapeutically effective medications for the treatment of acne, dandruff and seborrheic dermatitis. They contain Sebulytic^T (lauryl sulfoacetate, alkyl aryl polyether sulfonate and dioctyl sulfosuccinate), a unique combination of penetrating anionic soapless cleansers and wetting agents which are highly antiseborrheic and exert antibacterial and keratolytic effects enhanced by sulfur, salicylic acid and hexachlorophene.

FOSTEX CREAM is applied as a therapeutic skin wash in the initial treatment of acne, when maximum degreasing and peeling are desired. Fostex Cake is used as a therapeutic skin wash for maintenance therapy to keep the skin dry and substantially free of comedones. Fostex Cream is also used as a therapeutic shampoo in dandruff.

WINTHROP LABORATORIES

Booth 10

Aralen phosphate, new, highly effective, well-tolerated, chemotherapeutic agent for the treatment of rheumatoid arthritis.

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The 1958

WOMAN'S AUXILIARY

PROGRAM

Registration

Lobby Floor Sherman Hotel
 Tuesday May 20th 8:00 AM to 4:00 PM
 Wednesday May 21st 8:30 AM to 4:00 PM

Hostesses will welcome Members and Guests
 in the Hospitality Room Orchid Room No. 106

PRE-CONVENTION SCHEDULE

Tuesday, May 20th
 Pre-Convention Board Meeting
 Life Room No. 108 8:30 AM

CONVENTION PROGRAM

Tuesday, May 20th
 George Bernard Shaw Room

Formal opening of the Thirtieth Annual Meeting
 10:00 AM

Mrs. Nicholas G. Chester,
 President, Presiding

Invocation The Rev. Dr. Warren N. Clark,
 Pastor, River Forest Methodist Church

Pledge to the Flag Mrs. Harlan English,
 Treasurer Woman's Auxiliary to the AMA

Pledge of Loyalty Mrs. James P. Simonds,
 Woman's Aux. to the American Medical Asso.

Welcome Mrs. Sherman C. Arnold,
 Woman's Aux. to the Chicago Medical Society

Response Mrs. William Blender, Jr.,
 Woman's Auxiliary to the

Peoria County Medical Society

Report of Credentials and Registration Committee
 Mrs. W. W. Davidson, Chairman

Reading of the Convention Rules of order . . .
 Mrs. Percy M. Clark, Parliamentarian

Adoption of Convention Program

Announcement of Reference Committee Appoint-
 ments

Appointment of Committee on Courtesy and Reso-
 lutions

Appointment of Election Committee

Appointment of Reading Committee

Greeting from the Illinois State Medical Society

Walter C. Bornemeier, M.D.,

Chairman of the Advisory Committee

Convention Announcements

Mrs. Michael G. Maitino, Convention Chairman

Memorial Services

. Conducted by Mrs. B. K. Lazarski

Report of the Revision Committee

. Mrs. Clarence McClelland, Chairman

Afternoon Session

2:00 PM LOUIS XVI ROOM

Tea

Chairman Mrs. Richard E. Westland

Co-Chairman Mrs. Sherman C. Arnold

Members of the Board of the
 Woman's Auxiliary
 to the

Chicago Medical Society

Program to be

Announced

6:30 PM PUBLIC RELATIONS DINNER

Percy E. Hopkins, M.D., Chairman

All Members of the Woman's Auxiliary are in-
 vited to attend and bring guests.

Second Session — Delegates

Wednesday May 21, 1958

Continental Breakfast

George Bernard Shaw Room 8:00 AM to 9:00 AM
 honoring

Mrs. Paul C. Craig,
 President

Woman's Auxiliary
 to the

American Medical Association

Second Delegate Session

George Bernard Shaw Room 9:15 AM

WORKSHOP

Program Moderator . . Mrs. George L. Pastnack,
 Program Chairman, Woman's Auxiliary to ISMS

Introductions

Mrs. Paul C. Craig, National President

Introduction given by:

Mrs. Nicholas G. Chester,

President, Woman's Auxiliary, ISMS

A report on PUBLIC RELATIONS. Introduc-
 tion-Percy Hopkins, M.D.

Mr. Leo E. Brown, Director Public Relations,
 American Medical Association.

A report on Legislation. Introduction-Percy
 Hopkins, M.D. Mr. C. Joseph Stetler, Director,
 Law Department American Medical Association.

A report on Recruitment.

Walter C. Bornemeier, M. D., Chairman, Ad-
 visory Committee, Illinois State Medical Society.

PRESIDENTS REPORTS

The Presidents will report under the State
 Chairman, according to Subject Matter. Delegate
 Handbook to give detailed account of reports.

QUESTION BOX

Open discussion on Auxiliary procedures
..... Mrs. James McDonnough, Chairman
Panel: Mrs. E. M. Egan, Mrs. Robert E. Dun-
levy, Mrs. Lee Hamm.

WEDNESDAY

Adjournment

LUNCHEON

Bal Taberin 1:00 PM
Chairman
Introduction of Program Mrs. William Blender, Jr.
Woman's Auxiliary to the
Peoria County Medical Society
Co-Chairman Mrs. M. T. Gorsuch
Woman's Auxiliary to the
Peoria County Medical Society
Wednesday Evening
6:00 PM Hospitality Hour

GRAND BALLROOM

SHERMAN HOTEL

7:00 PM THE ANNUAL DINNER
in honor of
Lester S. Reavley, M. D.
and the Past Presidents

Members of the Woman's Auxiliary to the
Illinois State Medical Society are cordially invited
to be present for the Annual Dinner.

Committee for the President
MRS. HARLAN ENGLISH
MRS. JOSEPH LUNDHOLM
MRS. JEROME J. BURKE

All County Presidents
Mrs. Alfred Pagano,
Chairman, Ticket Sales.

Tickets to the Annual Dinner will be sold
only through the Woman's Auxiliary to the Illi-
nois State Medical Society.

THIRD DELEGATE SESSION

George Bernard Shaw Room

May 22, 1958 9:00 AM

Report of Courtesy & Resolutions Committee—
Mrs. James P. Simonds

Final Report of Credentials and Registration
Committee

Presentation of the Budget for 1958-59, Mrs.
S. M. Hubbard, Finance Chairman

Reference Committee Reports:

Mrs. Gregory Carey, Chairman

Report of Officers & Directors

..... Mrs. William Somerville

Report of Councilors Mrs. Carl E. Sibilsky

Report of Standing Committee Chairmen

..... Mrs. Henry Christiansen

AWARDS

PRESENTATIONS

American Medical Education Fund

..... Mrs. Burtis E. Montgomery
Benevolence Mrs. Richard E. Westland
BULLETIN Mrs. Jerome J. Burke
Today's Health Mrs. Henry Christiansen

REPORTS OF COUNCILORS

Moderator Mrs. Fred C. Endres
Report of the Nominating Committee
..... Mrs. Warren W. Young
Election of Officers
Election of Delegates to the WAAMA
New Business
Convention Announcements

INSTALLATION LUNCHEON

SHERATON-BLACKSTONE HOTEL

Crystal Ballroom 1:00 PM

Honoring

Past Presidents of the Woman's Auxiliary
to the Illinois State Medical Society
and

Mrs. Nicholas G. Chester .. Mrs. Fred C. Endres
Retiring President Incoming President
Installation of Officers .. Mrs. Carl E. Sibilsky
Luncheon Chairman . Mrs. John Malcolm Tindal
Co-Chairmen Mrs. Roland A. Kowal
Mrs. Robert C. Romano

Post Convention

Board Meeting Room 107, Hotel Sherman 4:00
PM

Mrs. Fred C. Endres, Presiding

CONVENTION COMMITTEES

CONVENTION CHAIRMAN

..... Mrs. Michael G. Maitino

HONORARY CHAIRMEN

Mrs. Lester S. Reavley
Mrs. Walter C. Bornemeier
Mrs. C. Elliott Bell
Mrs. Raleigh C. Oldfield
Mrs. G. Henry Mundt
Mrs. Joseph T. O'Neill

PRESS AND PUBLICITY

Chairman Mrs. John W. Koenig
Co-Chairman Mrs. Joseph Shanks
Mrs. Dale Raines
Mrs. J. S. Schriver
Mrs. Edward G. Warnick

REGISTRATION AND CREDENTIALS

Chairman Mrs. W. W. Davidson
Mrs. J. Lewis Bailen
Mrs. Nathaniel Baskind
Mrs. Joseph L. Bezdek
Mrs. H. Richard Bowman
Mrs. Sidney Brown
Mrs. Henry Christiansen
Mrs. V. E. Engelmann

Mrs. Irving B. Ferrias
Mrs. E. S. Frazier
Mrs. Clifford W. Fredberg
Mrs. William G. Gillies
Mrs. Ferny C. Johnson
Mrs. Benjamin Komasa
Mrs. M. E. Lichtenstein
Mrs. A. I. Love
Mrs. Donald W. Lyddon
Mrs. Frederick J. Roos
Mrs. Leo Roseman
Mrs. P. C. Rumore
Mrs. Henry Runde
Mrs. H. E. Schoonover
Mrs. G. J. Sciaraffa
Mrs. Frederick W. Slobe
Mrs. Charles Sproc
Mrs. Bernard Strassman
Mrs. P. C. Supan
Mrs. N. A. Thompson
Mrs. Edward G. Warnick
Mrs. August Wendell
Mrs. William B. Werner

COURTESY AND RESOLUTION

Chairman Mrs. James P. Simonds
Mrs. James M. McDonnough
Mrs. Albert T. Kwedar

ELECTION

Chairman Mrs. Leonard J. Houda

TIME KEEPERS

Chairman Mrs. H. Kenneth Scatliff

MEMORIAL SERVICE

Chairman Mrs. B. K. Lazarski

HOSPITALITY

Chairman Mrs. Matthew E. Uznanski
Co-Chairmen Mrs. Harlan English
 Mrs. Joseph S. Lundholm

Mrs. Sherman C. Arnold
Mrs. Sidney Brown
Mrs. Robert E. Dunlevy
Mrs. Victor E. Engelmann
Mrs. Ephraim Grier
Mrs. Edward C. Helfers
Mrs. Clarence McClelland
Mrs. Eugene T. McEnery
Mrs. A. V. Partipilo
Mrs. David Slight
Mrs. Irving D. Thrasher
Mrs. Frederick Tice
Mrs. Allen S. Watson
Mrs. Richard E. Westland

INFORMATION

Chairman Mrs. Abraham Schultz
Co-Chairman Mrs. William F. Bartelt
Mrs. Nathaniel Baskind
Mrs. Leonard Brodt
Mrs. Robert E. Field
Mrs. Marcello Gino

Mrs. James P. Griffin
Mrs. John Brown Jacobs
Mrs. Howard W. Schneider
Mrs. Gerald M. Stazio

FAVORS

Chairman Mrs. Thaddeus J. Jasinski
Co-Chairman Mrs. Peter J. Giannini

FLOWERS

Chairman Mrs. Joseph A. Cari

HOSPITALITY FOR SPECIAL GUESTS

Chairman Mrs. Warren W. Young
Co-Chairman Mrs. Eugene T. McEnery

HOUSE

Chairman Mrs. Charles W. Stigman
Co-Chairman Mrs. W. J. Wanninger

PAGES

Chairman Mrs. Nicholas Mennite
Jane Cangelosi
Marty Cangelosi
Carol Anne Carelli
Karen Gino
Judy Hausman
Tami Hausman
Ursula Jasinski
Charlene Krause
Judy Krause
Suzanne Maitino
Noreen Mennite
Leonora Pagano
Lynda Romano
Manuela Serritella

READING

Chairman Mrs. Harry A. Mittleman
Mrs. Warren W. Young
Mrs. Edward G. Warnick

REFERENCE

General Chairman Mrs. Gregory Carey
Chm., Committee I Mrs. William Somerville
Chm., Committee II Mrs. Carl E. Sibilsky
Chm., Committee III . . Mrs. Henry Christiansen

TICKETS

Chairman Mrs. Alfred Pagano
Co-Chairman Mrs. Joseph P. Cangelosi
Mrs. Julius Adler
Mrs. Paul Carelli
Mrs. William Hart
Mrs. Edward C. Helfers
Mrs. Paul Hletko
Mrs. L. J. Jurek
Mrs. George A. Koranda
Mrs. Dan Morse
Mrs. J. Emil Romano
Mrs. Joseph Stuart
Mrs. Fred A. Tworoger
Mrs. Khan Zia

INSTALLATION OF OFFICERS
..... Mrs. Carl E. Sibilsky

TEA

Chairman Mrs. Richard E. Westland
Co-Chairman Mrs. Sherman C. Arnold
Mrs. Joseph P. Cangelosi
Mrs. Joseph A. Cari
Mrs. Nathaniel Baskind
Mrs. Fernly C. Johnson
Mrs. Frederick J. Roos
Mrs. Matthew E. Uznanski
Mrs. Leonard J. Houda
Mrs. Warren Young
Mrs. John Malcolm Tindal
Mrs. N. C. Meyer
Mrs. Khan Zia
Mrs. A. R. Starr
Mrs. Holger N. Hoegh
Mrs. Silvio Del Chicca
Mrs. Frederick J. Roos
Mrs. Thaddeus J. Jasinski
Mrs. H. W. Hilsten
Mrs. David Johnson
Mrs. Howard W. Schneider
Mrs. Frank Kraft

CONTINENTAL BREAKFAST

Chairman Mrs. Matthew E. Uznanski
Co-Chairman Mrs. Harlan English
Co-Chairman Mrs. Joseph S. Lundholm
and members of the Hospitality Committee

LUNCHEON, Wednesday, May 21

Chairman Mrs. William Blender, Jr.

Co-Chairman Mrs. Thomas Gorsuch
Mrs. Dean Bordeaux
Mrs. Elliot Burt
Mrs. G. W. Giebelhausen
Mrs. Edward Giunta
Mrs. William Hart
Mrs. James Kenny
Mrs. Joseph Kraft
Mrs. Howard Lowy
Mrs. Howard Miller
Mrs. Dan Morse
Mrs. W. S. Newcomer
Mrs. Paul Palmer
Mrs. Norman Powers
Mrs. Ben Wrigley

LUNCHEON AND FASHION SHOW,

Thursday, May 22

Chairman Mrs. John Malcolm Tindal
Co-Chairman Mrs. Roland A. Kowal
Co-Chairman Mrs. Robert C. Romano
Mrs. Peter J. Giannini
Mrs. Martin W. Green
Mrs. Leonard J. Houda
Mrs. Harold M. Kass
Mrs. Ralph Pagano
Mrs. Benjamin Pearlman
Mrs. Vincent Pecora
Mrs. Rocco V. Serritella
Mrs. Charles Sproc
Mrs. Richard J. Vacco
Mrs. Ralph White

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**It is NOT too early
to make plans and
reservations for this,
your meeting of the
year!**

THE P. R. PAGE

John A. Mirt



Dr. Blasingame to be PR speaker

Dr. F. J. L. Blasingame, the general manager of the American Medical Association, will be the speaker at the annual dinner sponsored by the Committee on Medical Service and Public Relations of the Illinois State Medical Society.

The dinner will be given in the Hotel Sherman, Chicago, on May 20, the opening day of the four day annual meeting of the Society.

Dr. Blasingame's talk will be of particular interest to all county medical society officers and committee members in view of the reorganization which is taking place at the headquarters of the AMA.

Further details will be given in the next issue of the *Illinois Medical Journal*, and by mail to all county societies.

Legislators attend CMS meeting

The Illinois State Medical Society and the Chicago Medical Society joined to show state legislators how physicians in Illinois keep abreast of the latest techniques in the field of medicine.

State senators and representatives from Cook County were invited to attend the annual Clinical Conference of the CMS in the Palmer House, March 5. The invitation was accepted by four senators and 21 representatives, together with

the wives of those who were married. Others sent regrets.

Many of the guests were taken on individually conducted tours in the afternoon, covering the scientific sessions and the scientific and technical exhibits. They expressed surprise at the vastness of this postgraduate education, the attendance of about 3,600 physicians, and the interest physicians displayed in the scientific advancements. The point brought home was that the education of a physician keeps up until he retires or passes away.

In the evening, the legislators and their wives were guests at the annual dinner, entertainment, and dance. The state senators and representatives were introduced to the assemblage, which filled the Grand Ballroom.

Members of the committee who carried out the arrangements for this invitational event were pleased. It was agreed that many of the state legislators were impressed by what medicine is doing to provide the residents of Illinois with the best of medical care.

DeKalb invites legislators

The DeKalb County Medical Society at its February dinner had as guests the state senator and two state representatives from that district. The third representative was unable to attend. Auxiliary members also were present. Almost the

entire membership of the county society and auxiliary turned out.

The legislators present were Sen. Dennis J. Collins (R., DeKalb), Rep. A. B. McConnell (R., Woodstock), and Rep. John P. Manning (R., Rochelle). Rep. Ferne C. Pierce (D., Malta) had a previous engagement.

The legislators were given as much time as they wanted to present their views on medicine and to offer helpful suggestions. All expressed hearty approval of the efforts of the Illinois State Medical Society to provide the best medical care possible for the people of this state. They pointed out that cultists flood members of the legislature with personally written letters when their bills are up for consideration. Physicians, on the other hand, are lethargic. The legislators who are carrying the ball for medicine in the battles at Springfield need these letters to impress others that it is in the best interest of their constituents that certain bills be given support and that others be opposed.

Letters must be personal ones; "canned" ones are useless. These letters should come from physicians and members of the auxiliary; on particularly vital bills, the help of patients and friends should be sought.

Mr. Walter L. Oblinger, associate counsel of the ISMS, also spoke, reviewing the current status of the federal legislative front.

The DeKalb County Medical Society regarded the affair so successful that it is considering holding such meetings once or twice a year.

AMA to publish tabloid

The AMA announced that it will publish a new, 16 page tabloid newspaper to be called "*The AMA News*." It will be distributed bi-weekly to about 200,000 physicians.

Dr. F. J. L. Blasingame, general manager, said the paper "will bring to the attention of our members the multitude of projects and activities carried on by their association, as well as other nonscientific news of special interest to the medical profession."

Much of the news appearing in the publication will come from state and county medical societies as well as from a number of corre-

spondents located in key geographical areas.

"In this way," Dr. Blasingame said, "all physicians will be kept informed of what is going on in medicine in other states."

The publication will carry advertising. The editorial staff will work at the association's Chicago headquarters. The first issue is expected to be ready for distribution at the annual meeting of the AMA in San Francisco, June 23-27.

This tabloid can become a potent factor in medicine's public relations program.

Complaints of patients

A review of complaints reaching the Utah State Medical Association and the Salt Lake Medical Association indicates that the most aggravating situations so far as the public is concerned are:

(1) Misunderstanding of bills that are not broken down or explained as to work done; (2) waiting in physician's offices; (3) an inclination to increase the charge when a patient has insurance.

Judging by scattered reports, these are the main complaints in Illinois, too. Although it is impossible to satisfy some people no matter what is done, a goodly number of the complaints can be avoided by physicians.

In the case of No. 1, a frank discussion of charges before any service of consequence is undertaken will prevent many misunderstandings. The AMA has an excellent plaque available for placement in waiting rooms. This invites patients to talk over questions regarding services and fees, and points out: "The best medical service is based on friendly, mutual understanding between doctor and patient." An itemized bill also is helpful.

Unnecessary waiting can be done away with in some instances. When a physician is unavoidably called out on an emergency and is expected to be gone for a while, an office aid can telephone those with appointments, explain the situation, and advise them that all appointments have been delayed.

The charging of the usual fees, regardless of insurance coverage, will do away with complaint No. 3.

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AT THE EDITOR'S DESK



THE ETIOLOGY OF ATHEROSCLEROSIS. We wish our colleagues would write less about their theories on the relationship between cholesterol and atherosclerosis. The dietary aspects of the disease have changed so often during the past decade, we are beginning to lose face with our patients. First, cholesterol rich foods were verboten; then we were told that a low fat diet would lower the cholesterol level. Later it came out that the quality of the fat was more important; incorporating unsaturated fats into the meals overcame the adverse effects of saturated fats. This led to the addition of corn, safflower, and other vegetable oils to our therapeutic armamentarium.

Meanwhile the advocates of exercise or tranquilizers got into the act. Heredity played its part. The American Eugenic Society, for example, announced to the press that "heredity makes some of us more susceptible to coronary artery disease and high blood pressure as well as to certain other diseases of the heart."

Then came another culprit: "Evidence is accumulating that stress, even the stress of everyday living, plays an important role in the blood level of cholesterol and therefore has a bearing on the rate at which hardening of the arteries develops."

In a four year investigation by the Nutrition Foundation, Inc. the following conclusion was reached: "In men aged 45 to 62, elevated blood pressure, or fatness, or hypercholesterolemia are

associated with the development of heart disease." The risk is the greatest when all three factors are combined. There is no relationship between smoking or educational status and the appearance of new coronary disease.

Hypercoagulability of the blood plays an important role, according to R. B. Hunter, on the basis of studies conducted at the National Heart Hospital, London. He demonstrated a significant difference between patients with vascular disease and controls relative to thromboplastin generation, platelet stickiness, fibrinogen estimation, and prothrombin time.

Female sex hormones for the coronary susceptible male have not been mentioned but we have reason to believe they will be next on the agenda. Some of us are beginning to wonder if atherosclerosis is worth avoiding. The medical profession has an established reputation for being against anything that people enjoy. There comes a point of no return when restrictions outweigh the benefits accrued through longevity.

REVENUE FOR MEDICAL CENTER—The West Virginia University Medical Center realized more than \$3 million annually from the soft drink "pop" tax in the state. The legislature recently decided to include powdered flavors; this source will bring in an additional \$600,000 per year. A considerable sum of money will be allocated for the medical center through increasing the tax on insurance premiums from two to three per cent.

VIEWSCOPE—A new microprojection view-scope fits any microscope with a monocular tube. Its unique prism lens system produces a brilliant, clearly defined image on a five inch diameter viewing screen. The device should be of value in science teaching and research.

NEW—A bactericidal gas, beta-propiolactone, may be of value in sterilizing operating rooms, hospital nurseries, and the like. It has been used to disinfect entire laboratory buildings.

An artificial nylon fiber muscle may prove to be a boon to those with paralyzed hands. This "hand motivator" controls grasping movements of the thumb and first two fingers. The nylon fibers are woven into a geometric pattern enclosing a special rubber tubing. Movement is controlled with compressed carbon dioxide gas, released through a switch. The device is a simple metal harness that fits somewhat like a splint over the forearm, thumb, and two middle fingers.

Syntex, of Mexico City, is pushing its new steriod, 17-ethinyl 19-nortestosterone as an inhibitor of ovulation and in the treatment of disturbances of pregnancy and female endocrine disorders. The company hopes its product will offer a solution to Japan's overpopulation problem.

A preparation of 1 per cent heparin and 3 per cent neomycin, polymyxin, or streptomycin was found to be successful in the treatment of resistant eczema, according to David A. Dolowitz of the University of Utah School of Medicine. The addition of heparin permits higher dosages of antibiotics without toxic effects.

Chilling the skin with Zephiran ice cubes is reported to induce local anesthesia and anti-sepsis. Dr. Murray C. Zimmerman uses this technique prior to the injection of a local anesthetic into multiple areas for removal of a number of benign skin lesions from a child or pain sensitive adult.

TB blood test—A blood test that may prove practical in detecting active tuberculosis has been developed by Dr. Guy P. Youmans and associates at Northwestern University Medical School. It is an antigen antibody reaction. Serum

from 52 patients was tested and in all but four, antibodies in the serum reacted to the antigen. The test was performed also on 28 clinically well persons and only two reacted; one had had tuberculosis of the kidney and the other worked in a laboratory with tubercle bacilli.

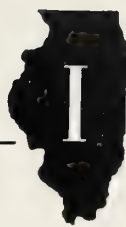
HEMOLYTIC ANEMIA—Dr. Ruth T. Gross and Dr. Paul A. Marks re-emphasized the fact that hemolytic anemia may stem from food and drugs. In their opinion many otherwise healthy persons develop the blood disease because they lack the enzyme glucose-6-phosphate dehydrogenase. This deficiency stems from a heredity defect. Pava beans, a favorite of Italians, Greeks, and other Mediterranean peoples, is the only known food to cause the disease. Phenacetin, primaquine, PAS, the nitrofurans, and the sulfonamides are the drugs more likely to cause this trouble. The naphthalene in moth balls is a common culprit in children. Negroes are ten times more likely to inherit the blood defects than the whites.

THANK GOODNESS—There were 400 new pharmaceuticals in 1957. Fifty were new chemical entities, 88 were duplications of known agents, and the remainder were different combinations or dosages of existing drugs. We are happy to read of this breakdown because it is difficult to keep up with 50 brand new medicines, let alone 400.

NEW—Pfizer's new product, Cosa-Tetracycln is said to double the blood level of tetracycline within two hours. It contains glucosamine which promotes more rapid absorption and prolonged blood levels.

CATASTROPHES—Deaths in the United States from catastrophes increased from 400 in 1956 to almost 1,700 in 1957. Hurricane Audrey is blamed for much of the increase, with 350 known deaths. Other headliners include a fire that destroyed a home for the aged at Warrenton, Missouri, 72; a tornado which struck the Kansas City area, 39; a gas explosion in a coal mine near Bishop, Virginia, 37; and the March blizzard in the Great Plains states, 29.

NEWS of the STATE



COOK

GRANT. Dr. Robert B. Jennings, assistant professor of pathology of Northwestern University Medical School, was named one of 25 "Scholars of Medical Science" by the John and Mary R. Markle Foundation of New York City. Dr. Jennings is noted for research on kidney and heart disease. The foundation has allocated \$30,000 for each scholar's medical school for support of his teaching and research for five years. The grant is effective July 1.

PEDIATRIC MEETING. Dr. Piero P. Foa, professor of physiology and pharmacology at Chicago Medical School, has been invited to speak at a symposium on carbohydrate metabolism in childhood. The meeting, which will be held in the Pediatric Clinic of the University of Berne, Switzerland, June 2-7, is under the patronage of the International Pediatric Association.

HONORS. Dr. Ernest E. Irons, president of Municipal Tuberculosis Sanitarium, received the Chicago Medal of Merit, March 4, for civic contributions.

Dr. Arnold Tatar, Michael Reese intern, was named Man of the Year by Phi Delta Epsilon, international honorary medical fraternity. The award, given annually by the fraternity, is for scholastic achievement, research, and participation in extracurricular activities.

BOOST RESEARCH FUND, Michael Reese Hos-

pital will spend \$5,300,000 this year on research and a series of project developments. Funds budgeted for research total \$781,000, compared with \$543,000 for the same purpose in 1952.

LECTURES. The Chicago Neurological Society met March 11 and had its customary program of short talks, including "A Cerebrospinal Fluid Bank" by Peter J. Talso and H. C. Voris; "Post-Traumatic Cerebral Herniation with Pressure Atrophy of the Frontal Bone" by Ernst Haase and Oscar Sugar; and "Oculomotor Palsies Associated with Diabetes" by Nicholas Wetzel.

The Society of Medical History of Chicago had an open meeting March 12. "History of Involuntary Movement" was given by André Barbeau, M.D. and "Uroscopy—The Clinical Laboratory of the Past" by Joseph H. Kiefer, M.D.

The Pusey lecture of the Chicago Dermatological Society, given March 19, was "An Anecdote of an Agnostic Allergist" by Dr. Walter C. Lobitz, Jr. of Hanover, New Hampshire.

HENRY

MEETING. The Henry County Medical Society held a meeting, March 12, at the LeClaire Hotel, Galva. A sound film in color on glaucoma, produced by the National Society for the Prevention of Blindness, was shown and monitored by Dr. W. W. Baumgartner, of Kewanee, a specialist certified by the American Board of Ophthalmology and a Fellow of the American Academy of

Ophthalmology. He represents the medical profession on the joint committee for visual screening of the school children of Henry County and recently was appointed chairman of the Public Relations Committee of the Henry County Medical Society. Dr. A. W. Wellstein, Geneseo, secretary-treasurer of the Henry County Medical Society, was in charge of the arrangements for the meeting.

LAKE

CASE PRESENTATION. The medical staff of Lake Forest Hospital and the Chicago Heart Association held a scientific meeting March 10. All members of the Lake County Medical Society were invited to hear a case presentation, "Aortic Stenosis and Bacterial Endocarditis" by Dr. John Ward, attending physician in internal medicine of the hospital.

LASALLE

TALK. Dr. Margaret Gerber, Evanston, instructor in ophthalmology at Northwestern University Medical School, and certified by the American Board of Ophthalmology, addressed the LaSalle County Medical Society, March 13, at St. Mary's Hospital Home, Streator, on "Ophthalmologic Emergencies and the General Practitioner." Dr. W. C. Schiffbauer, Streator, program chairman of LaSalle County Medical Society, was in charge of the arrangements. Dr. Martin J. Rosenthal, LaSalle is president and Dr. Ralph J. Bailey, Ottawa, secretary of the LaSalle County Medical Society.

LOGAN

POSTGRADUATE CONFERENCE. The Logan County Medical Society was host, March 20, to physicians from a dozen surrounding counties. After a luncheon at the Abraham Lincoln Memorial Hospital, Lincoln, came the postgraduate conference. The speakers and subjects were: Dr. H. Close Hesseltine of Chicago, "Application of Forceps—Demonstration with Manikin;" Dr. Justin C. McNutt of Bloomington, "Application of Splints and Casts;" Dr. Floyd S. Barringer of Springfield, "Neurological Examination;" and Dr. Toby E. Silverstein of Bloomington, "Pathological Specimens and Slides."

Dr. Jacob E. Reisch, Springfield, Councilor for the 5th district of the society, presided at the afternoon meeting, and spoke at the dinner meeting. Another evening speaker was Mr. Roger W.

Peterson of Bloomington, who spoke on "The Business Side of Medical Practice." The evening chairman was Dr. Wilfred M. Spaits, Atlanta, president of the Logan County Medical Society.

MACON

SCIENTIFIC MEETING. "Special Considerations in the Handling of the Pediatric Surgical Patient" was the topic of Dr. Hugh B. Lynn, professor of pediatric surgery, Louisville School of Medicine, and chief of surgery, Children's Hospital, Louisville, Kentucky, at the March 25 meeting of the Macon County Medical Society.

SANGAMON

MEETING. At the regular March meeting of the Sangamon County Medical Society, Stuart W. Harrington, M.D., emeritus professor of surgery, Mayo Foundation, spoke on "Diseases of the Breast."

TAZEWELL

SPEAKER. Dr. Theodore R. Van Dellen, our associate editor, spoke March 4 on "Medicine in the News," at the meeting of the Tazewell County Medical Society. The Women's Auxiliary extended the invitation. Mrs. William Werner is president of the auxiliary and Dr. Cody Cox is president of the society.

VERMILION

SPEAKER. At the March meeting of the Vermilion County Medical Society, Dr. Harold Lueth, clinical professor of medicine, University of Illinois College of Medicine, spoke about "Medical Aspects of Civil Defense."

GENERAL

NORTHWESTERN UNIVERSITY ALUMNI. During the coming AMA convention, the medical division of the Northwestern University Alumni Association will hold a luncheon on Tuesday, June 24, at 12:30, at Hotel Canterbury, 750 Sutter St., San Francisco. Tickets for the luncheon are \$3.50 each; reservations may be made and tickets obtained at the Medical Alumni office, 303 E. Chicago Ave., Chicago 11.

LECTURES ARRANGED BY THE ILLINOIS STATE MEDICAL SOCIETY:

HAROLD DUBNER, psychiatrist in charge of the Parkway Sanitarium, addressed the Worth Township Teachers' Institute in Blue Island, March 10, on "Mental Health."

HENRY M. WILSON, JR., Chief of the Section

on Medicine of the Methodist Hospital, Peoria, addressed the Bureau County Medical Society in Princeton, March 11, on "Jaundice."

JAMES H. HUTTON, consulting endocrinologist for the Illinois Central and Chicago and Eastern Illinois Railways, addressed the Champaign County Medical Society in Champaign, March 13, on "Disorders of the Adrenal Cortex."

ROBERT E. HEERENS, Rockford, chairman of the Medical Service Committee of Winnebago County Medical Society, addressed the Stephenson County Medical Society in Freeport, March 20, on "Socialized Medicine."

JEROME T. PAUL, clinical associate professor of medicine, University of Illinois College of Medicine, addressed the Lee-Whiteside County Medical Societies in Dixon, March 20, on "Results of Therapy in Long-Range Diabetes."

HOWARD R. MILLER, Peoria, addressed a meeting of public health officers in Peoria, April 9, on "What Rheumatic Fever Prophylactic Program Means to the Practicing Physician."

CARL A. WALVOORD, South Holland, member of the American Academy of General Practice, Lincoln Manor Parent-Teacher Association in Dolton, May 6, on "Emotional and Sex Education for Children."

ADOLPH ROSTENBERG, JR., professor of dermatology, University of Illinois College of Medicine, Champaign County Medical Society in Champaign, May 8, on "The Dermatological Aspects of Freaks."

DEATHS

ROY SMITH BARNSBACK*, Edwardsville, who graduated at Vanderbilt University School of Medicine, Nashville, in 1899, died December 9, aged 83, of pulmonary edema and cardiac failure. He was founder and past-president of the Madison County Tuberculosis Association, past-president of the Madison County Medical Society, and medical examiner for the draft board during World War II.

WALTER C. BLAINE* Tuscola, who graduated at the University of Pennsylvania School of Medicine in 1896, died January 28, aged 89. He was a member of the Aesculapian Society of the Wabash Valley, and had practiced medicine in Douglas County for 62 years.

ANDREW GANSEVOORT*, retired, Chicago, who graduated at Rush Medical College in 1903, died February 24, aged 86. He had been a member

of the staff of Roseland Community Hospital for a number of years.

JOHN B. HAEBERLIN*, retired, Chicago, who graduated at Northwestern University Medical School in 1900, died February 12, aged 81. He was formerly chief of staff at St. Bernard's Hospital.

RALPH W. HARDINGER*, East Moline, who graduated at Rush Medical College in 1915, died recently aged 68.

BASIL C. H. HARVEY, retired, Chicago, who graduated at the University of Toronto Faculty of Medicine, Ontario, in 1898, died February 15, aged 83. He was emeritus professor of anatomy and former dean of medical students at the University of Chicago School of Medicine. In 1940 a group of his former students established the Basil Harvey fund, a loan fund for medical students.

WILLIAM A. JENSON*, Chicago, who graduated at the Chicago College of Medicine and Surgery in 1912, died February 26, aged 78. He had served as a member of the staff of the Swedish Covenant Hospital.

JAMES S. JOHNSON*, Cairo, who graduated at Vanderbilt University School of Medicine, Nashville, in 1908, and Rush Medical College in 1916, died January 6, aged 74. He lived in Wickliffe, Ky.

LOUIS C. MORRIS*, Chicago, who graduated at Rush Medical College in 1928, died February 23, aged 57. He was assistant professor of medicine at Northwestern University Medical School, a member of the staff of Cook County Hospital, and senior attending physician at Grant and Weiss Memorial Hospitals.

JOHN R. NORCROSS*, Chicago, who graduated at Northwestern University Medical School in 1932, died February 16, aged 51. He was associate professor of orthopedic surgery at Northwestern University Medical School, senior attending physician in the orthopedic department at St. Luke's Hospital, and a member of the staff of Children's Memorial Hospital.

NOAH FRANCIS ROBERSON*, Sparta, who graduated at the University of Nashville Medical Department in 1909, died in his sleep at his home, February 26, aged 86. He had practiced medicine a few months over 49 years.

WILLIAM ROSS ROBERTS, Watseka, who

*Indicates member of the Illinois State Medical Society.

graduated at the Kentucky School of Medicine, Louisville, in 1894, died December 11, aged 84. He was a member of the staff of the Iroquois Hospital.

FRANCIS E. SENEAR*, retired, Winnetka, who graduated at the University of Michigan Medical School, Ann Arbor, in 1914, died February 11, aged 68. He was emeritus professor and head of the department of dermatology at the University of Illinois College of Medicine, a former president of the Chicago Dermatological Society, the American Dermatological Association, and the American Academy of Dermatology and Syphilology. Last year he was elected president of the International Congress of Dermatology.

FRANK W. STANTON*, retired, Joliet, who graduated at Illinois Medical College in 1907, died December 10, aged 78.

GORDON R. SWANSON, Downers Grove, who graduated at Northwestern University Medical

School in 1925, died February 18, aged 58. He was a member of the American College of Surgeons.

JAMES R. WEBSTER*, Chicago, who graduated at Rush Medical College in 1932, died February 28, aged 51. He was professor of dermatology at Northwestern University Medical School, a member of the senior attending staff at Wesley Memorial Hospital, and attending dermatologist at Cook County Hospital. He was active in numerous dermatological organizations and headed the American delegation to the 11th International Congress of Dermatology in Stockholm last July.

BENJAMIN J. ZAHN, retired, Oak Park, who graduated at Chicago Homeopathic Medical College in 1900, died February 10, aged 89. He was a member of the "Borrowed Time Club" of Oak Park.

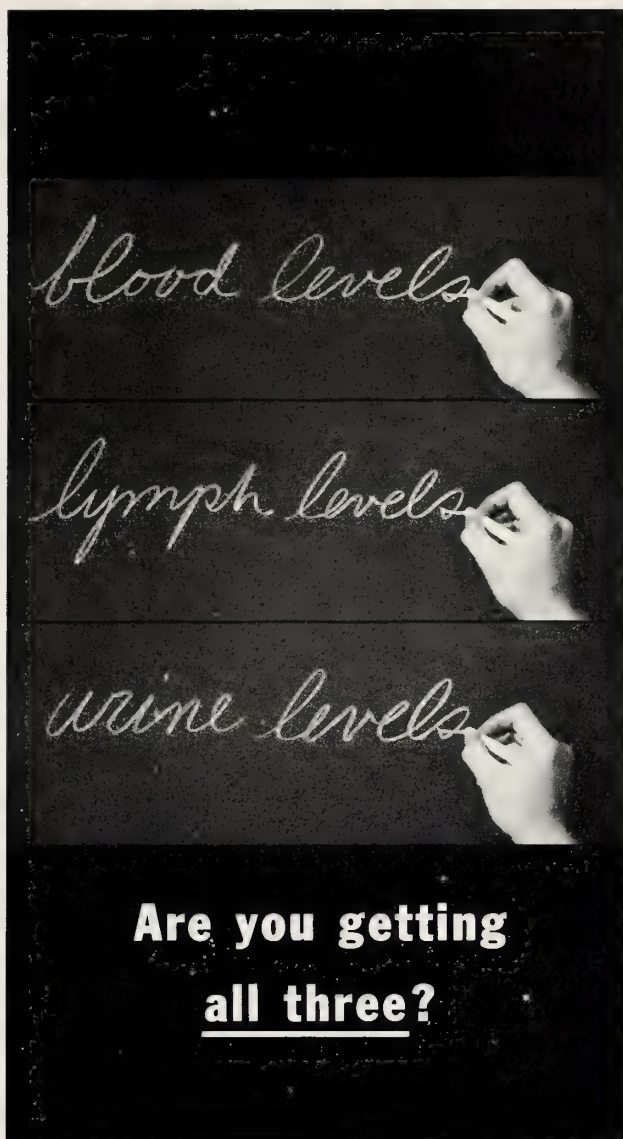
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This list is correct in accordance with the best information obtainable at the date of going to press. County Secretaries are requested to notify The Journal of any changes or errors.

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(Continued on page 53)

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BOOK REVIEWS



CLINICAL PROCTOLOGY. By J. Peerman Nesselrod, B.S., M.S., M.Sc. (Med.), M.D., F.A.C.S., F.A.P.S., Assistant Professor of Surgery, Northwestern University Medical School, Chicago. \$7.00. Pp. 296, with 72 figures, 2nd ed., W. B. Saunders Company, Philadelphia 5, 1957.

The book is a concise exposition of proctologic conditions and procedures and in its application to office procedures, lends itself to fast accurate reference. The complete index helps to locate a desired item easily. The book's arrangement presents the anatomy, physiology, and pathology; and gives subjective and objective symptoms and treatment suggestions.

This book is extremely valuable for the physician in general practice who is doing rectal examinations and treatment. One chapter explains the use of the proctoscope. The technique of introduction, with possible attending difficulties, is well handled and most of the pitfalls are explained.

A "real" physician after reading this book, would certainly desire to perfect himself further in proctologic procedures, which are among the most neglected by general practitioners. The surgeon finds in this small work many facets of information, items often overlooked in larger volumes. Witness the following: "The surgeon who fails to provide meticulous postoperative care for his anorectal surgical patients is remiss

in his duty. It would be better were he to exclude anorectal surgery from his practice."

C. P. B.

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MODERN OFFICE GYNECOLOGY. By George Blinick, M.D. and Sherwin A. Kaufman, M.D. \$4.50. Pp. 218, with 47 illustrations. Lea and Febiger, Philadelphia, 1957.

This brief, concise volume, only slightly larger than pocket size, has some good and some bad features. It is largely in outline form and is easy to follow. The majority of common conditions are discussed. The illustrations and comments are specific and generally well chosen. There are 63 pages of annotated bibliographies with short clinical abstracts for certain chapters.

In such a brief presentation there are necessarily certain omissions. The chapter on the menopause runs scarcely more than three pages. Under disorders of the vulva no mention is made of the relationship of diabetes mellitus to mycotic vulvitis. No reference is made to less common lesions such as tuberculosis of the vulva or hydradenitis or elephantiasis. The illustrations on pages 125-136 on monilia and trichomoniasis are not typical of the usual pattern either with the type of cell environment or the morphology of the organism.

The authors wrote the book "for everyday use by both the general practitioner and gynecolo-

(Continued on page 58)

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1. Comroe's Arthritis: Hollander, J. L., p. 149 (Fifth Edition, Lea & Febiger, Philadelphia, Pa. 1953).
2. Merck Manual: Lyght, C. E., p. 1102 (Ninth Edition, Merck & Co., Inc., Rahway, N. J. 1956).

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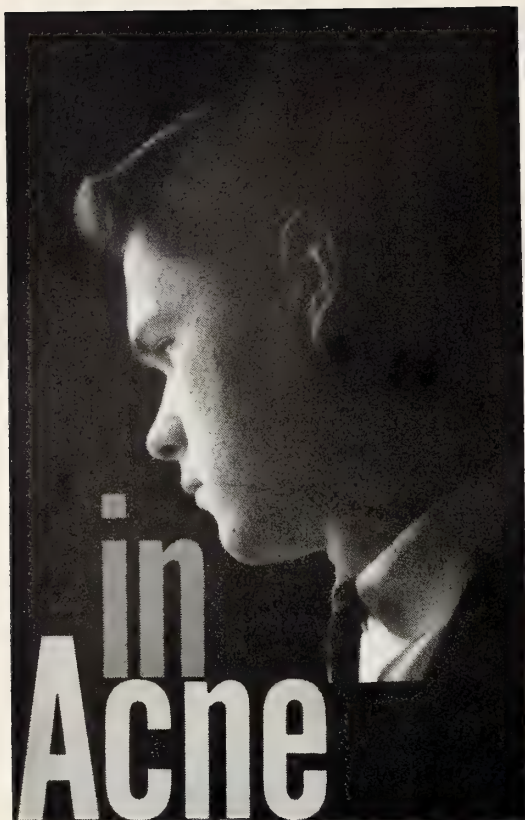
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1. Hodges, F. T.: *GP* 14:86, Nov., 1956.

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BOOK REVIEWS (Continued)

gist" and say it is built on experience in their own practice and in teaching gynecology to postgraduate students and general practitioners.
H.C.H.

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MODERN PERI-NATAL CARE. By Leslie V. Dill, M.D. \$6.50. Pp. 308. Appleton-Century-Crofts, New York, 1957.

The principal portion of this book deals with the medical, emotional, and psychological aspects of antepartum and postpartum women and, in this respect, has some merit. The format is attractive and the print clear; there are a few illustrations, and more diagrams and charts.

The author shows by word and graph the great improvement in mortality rates for mother and baby. The chapter on venereal disease runs to 18 pages and is one of the better portions of the book. The chapter on erythroblastosis is about 10 pages long and gives some of the facts about this problem. Chapter 20 deals with obstetrics and the law, and chapter 21 gives a clear, straightforward presentation of the Catholic viewpoint on obstetrical practice but there is no reference to the views of other religions.

Little space is given to differential diagnosis and chemical, microbiologic, or pathologic alterations and there is a deficiency also in discussion of therapy.

H. C. H.

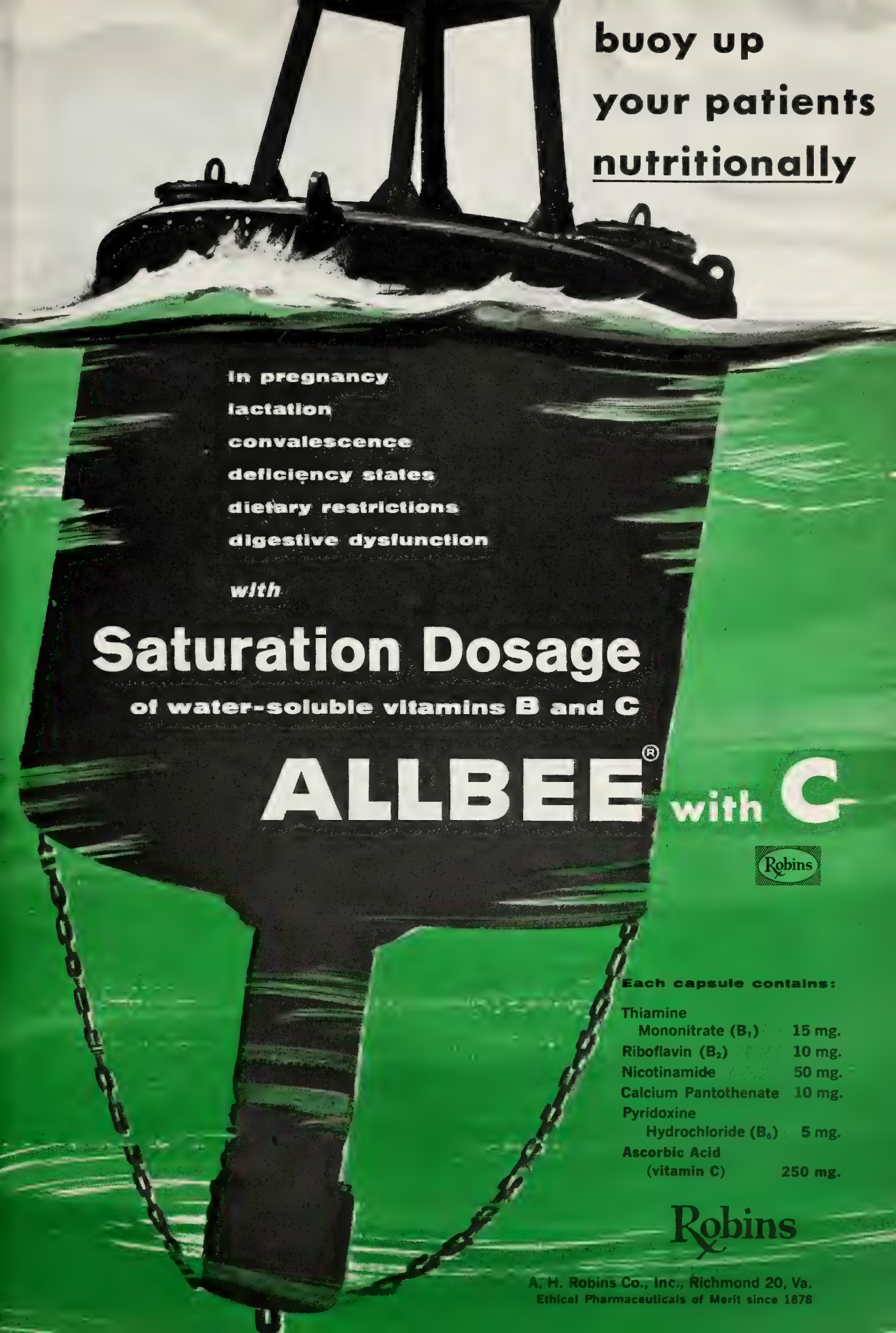
BOOKS RECEIVED

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

A HANDBOOK ON DISEASES OF CHILDREN including Dietetics & The Common Fevers. By Bruce Williamson, M.D., Edin., F.R.C.P. Lond. Physician, Children's Department, Royal Northern Hospital, London. Eighth edition. E. & S. Livingstone Ltd., Edinburgh and London. \$6.00.

ERYTHROBLASTOSIS FETALIS including Exchange Transfusion Technic. New England Journal of Medicine Medical Progress Series. By Fred H. Allen Jr., M.D., Clinical Associate in Pediatrics, Harvard Medical School, and Louis K. Diamond, M.D., Associate Professor of Pediatrics, Harvard Medical School. Little, Brown and Company, Boston and Toronto. Illustrated. \$4.00.

(Continued on page 60)



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BOOKS RECEIVED (Continued)

DIABETES AS A WAY OF LIFE. By T. S. Danowski, M.D., Renziehausen Professor of Research Medicine, University of Pittsburgh School of Medicine. Coward-McCann Inc., New York. \$3.50.

HOW TO WRITE SCIENTIFIC AND TECHNICAL PAPERS. By Sam F. Trelease, Columbia University. The Williams & Wilkins Company, Baltimore. \$3.25.

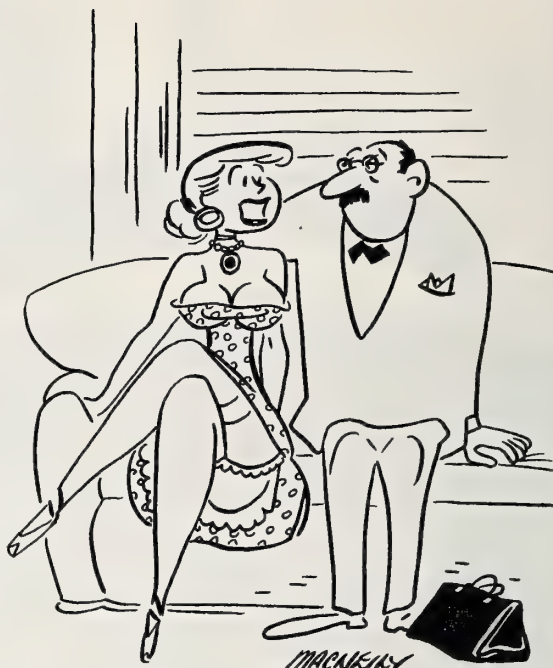
THE STUDENT LIFE. The Philosophy of Sir William Osler. Edited by Richard E. Verney, M.B., F.R.C.P.E., D.R., Physician in Charge, Department of Student Health, University of Edinburgh, and Nurses' Health Service, The Royal Infirmary of Edinburgh. E. & S. Livingstone Ltd., Edinburgh and London. \$4.00.

BIOLOGICAL APPLICATIONS OF INFRA-RED SPECTROSCOPY, Annals of the New York Academy of Sciences, Volume 69, Art. 1. Editor in Chief, Otto V. St. Whitelock. \$3.50.

MODERN IDEAS ON SPONTANEOUS GENERATION. Annals of the New York Academy of Sciences. Volume 69, Art. 2. Editor in Chief, Otto V. St. Whitelock. \$2.50.

THE ROLE OF ^{131}I LABELED PROTEINS IN BIOLOGY AND MEDICINE. Annals of the New York Academy of Sciences. Editor in Chief, Otto V. St. Whitelock. \$3.00.

PROTEOLYTIC ENZYMES AND THEIR CLINICAL APPLICATION. Annals of the New York Academy of Sciences. Editor in Chief, Otto V. St. Whitelock. \$3.50.



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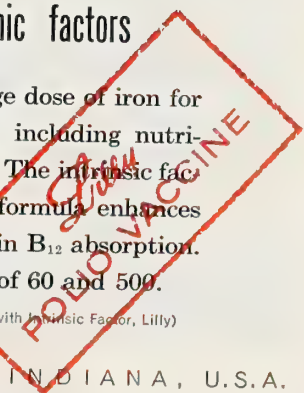
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The psychiatrist at work and at home

The psychiatrist in a general hospital usually is a somewhat remote figure who appears at lunch perhaps and usually can be found talking about cars and income tax and otherwise behaving like an ordinary human being. In a mental hospital the picture is very different. There, everyone strives to be well adjusted, well integrated, well rounded (personality, not person), and never so hopelessly inadequate or insecure as to lose his temper or even show irritation with the more infuriating of his patients or colleagues. For ordinary mortals like myself, these standards are rather exacting but after I get home in the evening, I find that when I have attacked the cat with a broom, cuffed our older child smartly behind her ear, shaken the younger until his teeth rattled, slammed down a charred sausage in front of my husband with a take-it-or-leave-it slant in my jawline, and ground the potato peelings savagely into the compost heap with my heel, I am refreshed and ready to be poised and sympathetic with my

neurotics the next day. It may be a bit hard on the domestic circle, but it is ever so abreactive. *In England Now. Lancet, Nov. 23, 1957.*

< >

Women in medicine

Salerno was astonishingly liberal in its outlook for, whereas our great teaching hospitals in London opened their medical schools to women students only during the past two decades, Salerno was prepared to admit them centuries ago during the Dark Ages. In his *Lehrbuch des Geschichte der Medecin*, Dr. H. Haeser records the names of five women studying medicine at Salerno and states that Constantia Calenda made a great reputation for herself there. In order that young women resident at Salerno should be properly looked after it was obligatory that the director of studies should be a married man, since part of his professional duties was to keep a paternal eye on the lady students. *Kenneth Walker. The Story of Medicine.*



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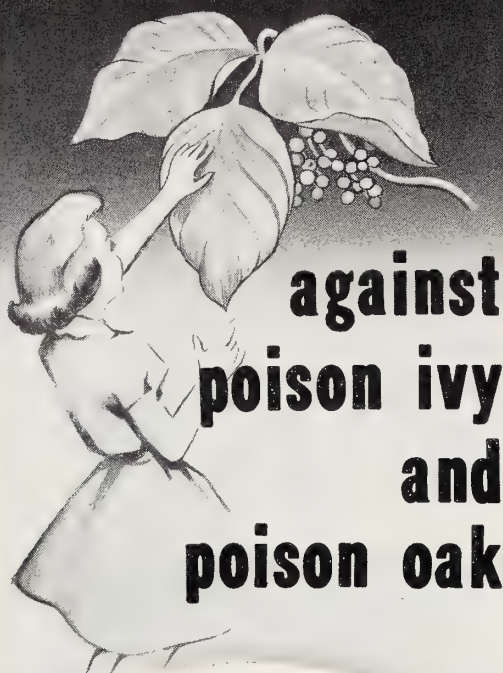
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Although surgery for hyperthyroidism produces a good percentage of remissions, we prefer radioactive iodine in the aged. Mortality as a direct result of treatment has been nil in our hands and morbidity has been limited to a few days of neck discomfort. It is not necessary to hospitalize the ambulatory patient for treatment. The medication is tasteless, and is taken by mouth as a clear solution. The majority of patients do well with a dose of 7 to 10 millicuries. We do not use special formulas to calculate dosage on the basis of gland size, weight, or scintigram pattern. Those with lower uptake we give doses of 9 to 10 millicuries, and those with high uptakes we give 7 or 8 millicuries. Patients with large glands, especially if nodular, do better with larger doses.

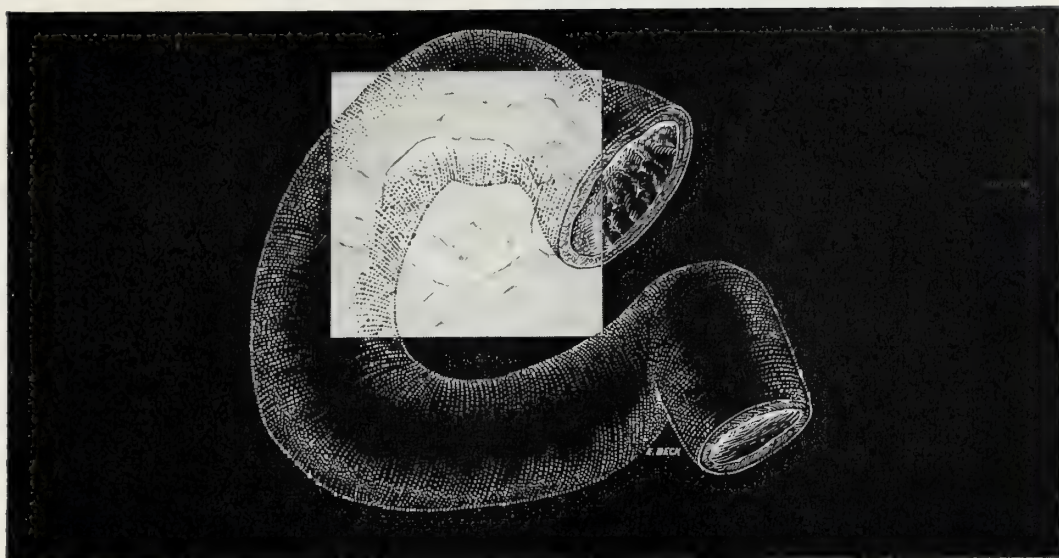
Patients who achieve a euthyroid status do so within six months with rare exceptions, and retreatment should be deferred until at least this period has elapsed, unless it is obvious that the patient has become more toxic and will suffer from delay. The routine post-treatment use of stable iodine or antithyroid drugs is rarely indicated. An occasional patient, however, may be given stable iodine solution starting 24 hours after the dose of I^{131} . This will prevent too rapid release of stored thyroid hormone, and has the additional advantage of keeping the administered I^{131} in the gland for a longer period. The practice of giving iodine solution posttreatment seems indicated in the very toxic patient in whom there is rapid turnover of iodine. *Loren T. Dewind, M.D.; Robert R. Commons, M.D.; and Paul Starr, M.D. Diagnosis and Management of Hyperthyroidism in the Aged. Geriatrics Feb. 1958.*

< >

Needless deaths

The importance of early recognition and differentiation of the various cutaneous tumors should not be minimized. Statistics tell us that 5,000 United States citizens die yearly of skin cancer. Errors in early diagnosis, inadequate attention to small cutaneous lesions when overshadowed by other complaints, and improper skill and judgment in evaluation and management undoubtedly are largely responsible for this total. *Donald J. McNairy, M.D. Cutaneous Neoplasms. Arizona Med. Dec. 1957.*

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Research in the Service of Medicine.

1. Lichstein, J.; Morehouse, M. G., and Osmon, K. L.: *Am. J. M. Sc.* 232:156 (Aug.) 1956.

2. Sun, D. C. H., and Shay, H.: *Arch. Int. Med.* 97:442 (April) 1956.

3. Rafsky, H. A.; Fein, H. D.; Breslaw, L., and Rafsky, J. C.: *Gastroenterology* 27:21 (July) 1954.

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5. Silver, H. M.; Pucci, H., and Almy, T. P.: *New England J. Med.* 252:520 (March 31) 1955.

SEARLE

THE ENCOURAGEMENT OF PROGRESS

The American Cancer Society's annual Spring Crusade is the climax of its year-round attack on cancer through research, professional and lay education, and service to the stricken. A study of the cancer scoreboard indicates that steady progress is being made. More and more lives are being saved. Progress encourages more progress.

Earlier diagnosis, new methods of treatment and a greater public awareness have contributed to this progress. It is often said that the life of the cancer patient is in the hands of the first physician he consults. The Society, therefore, conducts a broad professional education program, making available to doctors, through literature, films, exhibits, and other materials, information on the latest advances in detection, diagnosis and treatment.

As the Society aids the doctor, so does its large corps of volunteers aid the cancer patient with dressings, transportation, home care, medication and a host of other vitally needed services.

For the past two years, the theme of the Society's annual Crusade has been "Fight Cancer with a Checkup and a Check." That Americans everywhere are learning the value of the annual health checkup in the fight against cancer, is evidenced by the fact that doctors report they are now seeing more cancer in its earliest stages than ever before.

That American men and women have a personal stake in the program of the American Cancer Society is demonstrated by the public's generous support of the Crusade. This year the goal is \$30,000,000 and we are confident that our people will meet the challenge... will "fight cancer with a checkup and a check" in the encouragement of further progress.

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Who should lose weight

This raises the question of whether it may not be possible to select beforehand those persons who have the best chance of losing weight. Lately we have been trying to evaluate three criteria which may have some predictive value. The first of these is simply whether the person has ever successfully reduced before. Of course, there always has to be a first time. But by and large, if a person gives a history of a successful attempt at weight reduction, he seems to have a pretty good chance of being able to lose weight again.

The second criterion is how the patient feels during his first few days on the diet. There are some obese people who feel just wonderful. They say they have never felt better, that they are light on their feet, and so on. If a person had this kind of experience when he starts a diet, he has a much better than average chance of succeeding.

The third criterion is the pattern of the patient's eating. Some time ago we described a "night-eating syndrome," which consisted of morning anorexia, evening hyperphagia, and in-

somnia. When these symptoms were found together, it seemed that the people had a great deal of difficulty in losing weight. When they were absent, the chances for a successful weight reduction regimen were much better.

If all three of these criteria are favorable, that is, if the patient has lost weight before, if he feels well after starting the diet, and if he is not showing the night-eating syndrome, his chances of losing weight are pretty good. Conversely, if all three of these criteria are unfavorable, I think it unlikely that he would be able to lose weight. *Albert Stunkard, M.D. The Management of Obesity, New York J. Med. Jan. 1958.*

< >

If we are to survive the Atomic Age, we must have something to live by, to live on, and to live for. We must stand aside from the world's conspiracy of fear and hate and grasp once more the great monosyllables of life: faith, hope and love. Men must live by these if they live at all under the crushing weight of history. — O. P. Kretzmann, D.D.



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Speech after laryngectomy

After laryngectomy, since there are no longer vocal cords to be set in motion, phonation is lost. Since air does not pass through the molds of speech the whispered voice is lost though, as Jackson says, the patient can be assured that so long as air goes through the mouth, the achievement of a whispered voice is possible. Within a year or two it will become larger, though it will not be smooth. The results of training are variable and depend, for a considerable extent, on how intensive preoperative preparation and postoperative care have been. McCall and Fisher reported that of 99 patients who had some form of preoperative training in belching, 16 per cent had no voice at all and 16 per cent had poor voices. But 68 per cent had good voices, clearly audible over the phone, against 48 per cent in those who had no preoperative training. Andrews and Kucera, calling attention to the variability of the results of voice training after laryngectomy, state that in private patients they generally are good while in public charges they generally are poor. They believe that more co-operation between speech and hearing services and departments of bronchoesophagology might improve results, but that the single most important factor is motivation. *Arthur H. Davis, M.D. Cancer of the Larynx. J. Oklahoma Med. A. Nov. 1957.*

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Over the years, placebos have been shown to have an average significant effectiveness of 35.2 per cent. When used on a select group of patients with psychogenic disorders, the effectiveness is increased almost twofold, i.e., to 60.0 per cent. Thus any therapeutic response of 35 per cent or less is logically insignificant. A response of 60 per cent or greater in the treatment of migraine, peptic ulcer, paroxysmal tachycardia, hypertension, Raynaud's disease, or ulcerative colitis is required before an agent can be considered to have pertinent activity. The placebo which both the physician and the patient believe in is demonstrably the most effective. If the patient believes in it strongly enough, a placebo is often as effective as an active drug. *Roy R. Hieger, M.D. Divine Healing. J. Kansas M. Soc. Dec. 1957.*

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¹Nichols, R. L. and Finland, M.: *J. Clin. Med.* 49:410, 1957.



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ABO incompatibility

Hemolytic disease of the newborn resulting from incompatibility of the major blood groups is being recognized with increasing frequency. It was demonstrated by Halbrecht and strengthened by Hsia and Gellis that hemolytic disease due to ABO incompatibility is more common than that due to Rh incompatibility.

Although the pathogenesis of hemolytic disease of the newborn due to ABO incompatibility is not completely understood, the current concept is that the disease apparently results from a paternally inherited blood group factor. These factors referred to as 'A' or 'B' are not solely limited to the red cells but are secreted by all the tissues of the affected fetus. After crossing the placental barrier, these highly potent antigenic factors stimulate the production of antibodies by the mother. Witebsky has demonstrated that these antibodies are notably different from the normally circulating 'Anti-A' and 'Anti-B'. They are serum or albumin-active antibodies which are resistant to neutralization by the 'A' or 'B' blood group specific substance. These abnormal antibodies in turn cross the placental barrier and produce a hemolytic process in the infant. *M. A. Bodron, Jr., M.D. and James W. Cotter, M.D. ABO Incompatibility. J. Louisiana M. Soc. Dec. 1957*

< >

A summary on obesity

First of all, it is important to decide whether the patient would really benefit from weight reduction. This decision has to be made in the case of each patient. The statistical evidence that weight reduction helps is just not good enough to warrant blanket decisions. Then the physician might well bear in mind that the results of treatment, even by experts, are poor. That should dissuade him from setting his sights too high and from putting unwarranted pressures on his patients. As to specific treatment measures, I think that attention to the patient's life situation offers the best opportunity to help him lose weight and to maintain this weight reduction. *Albert Stunkard, M.D. The Management of Obesity. New York J. Med. Jan. 1958.*

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1. McHardy, G. and Browne, D.: South. M. J. 45:1139, 1952. 2. Hufford, A. R.: Rev. Gastroenterol. 18:588, 1951. 3. Johnston, R. L.: J. Indiana M. A. 46:869, 1953. 4. Miller, B. N.: J. South Carolina M. A. 48:245, 1952.



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The growing population

One factor of why the cost of public assistance is high is the growth in our population. Our old and our young — among whom dependency occurs most frequently — account for 80 per cent of the persons receiving the special types of public assistance. While the total population has grown 32 per cent in the past 20 years, the number of our children has increased 44 per cent and the over 65 group, by 79 per cent. Hence, although the total number of old age assistance recipients has gone down only slightly, there has been a substantial decline in the proportion of the aged receiving such assistance. When in the autumn of 1950 old age assistance caseloads first began to drop, 23 out of every 100 persons aged 65 and over received assistance. Currently, the ratio is down to 17 per 100. *Elliot Lee Richardson, Assistant Secretary of Health, Education, and Welfare. Address before American Public Welfare Association Northeast Regional Conference, Sept. 12, 1957.*

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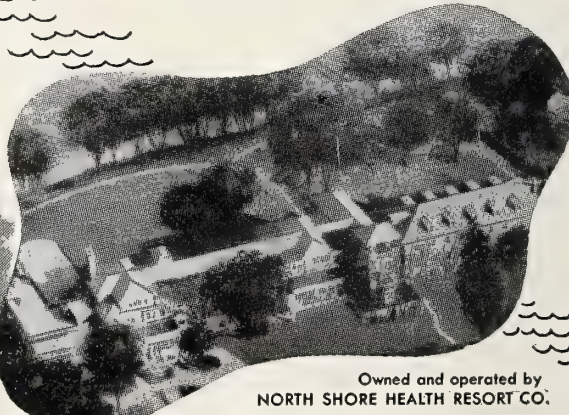
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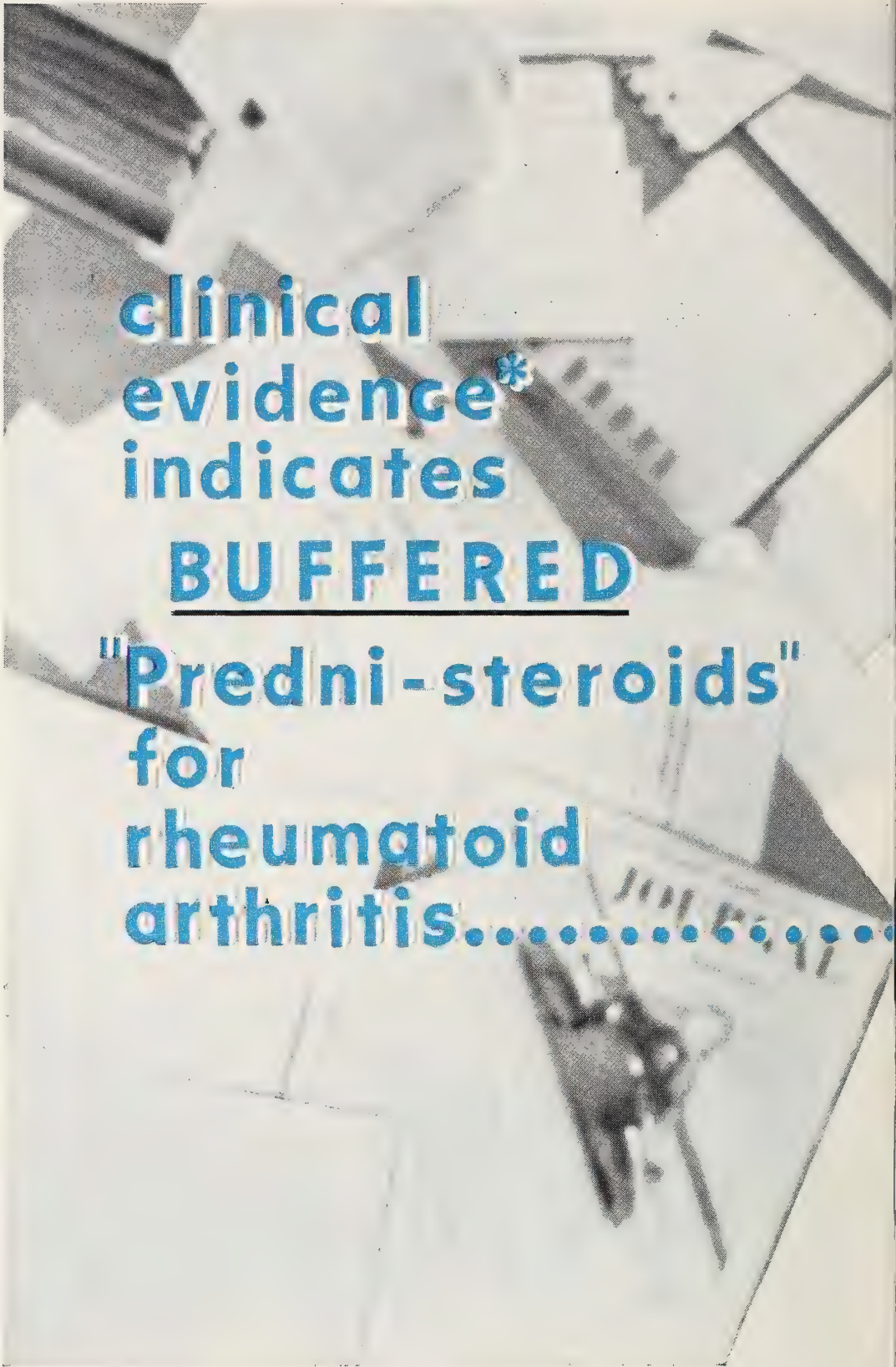
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NEWS OF THE STATE

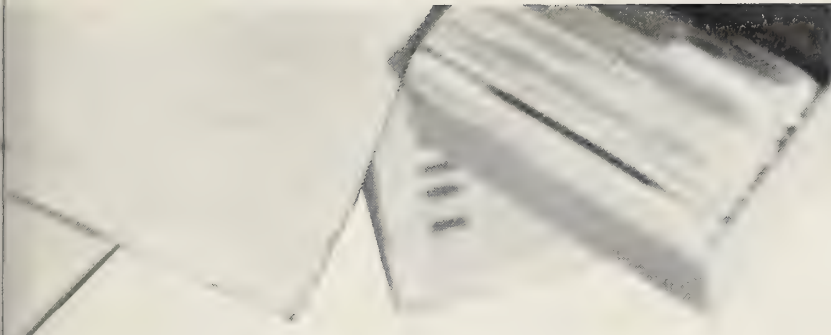
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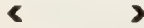
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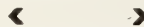
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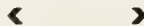
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The Month in Washington



Washington, D.C. — The recession continues to influence the course of much legislation, as Congress points toward the windup of its session. Even in the health fields, bills that promise in one way or another to alleviate unemployment appear to have priority. At the same time, federal departments are favoring construction grants to projects that can be started without much delay.

In legislation, here are some of the developments:

1. Liberalizations in unemployment compensation and in social security are receiving constant attention on Capitol Hill. At this writing, the bill to extend the period for unemployment compensation payments is making progress. There is the possibility also that it will make participation mandatory for all employers.

Prominent among proposed changes in the social security program itself is the Forand bill for free hospitalization and in-hospital medical care and surgery for persons entitled to social security benefits. It is being pushed by the AFL-CIO and by some liberal Democrats, and opposed by the American Medical Association and a growing group of other organizations. The opposition is convinced that the Forand bill is unnecessary, that it would be far more costly than anticipated, and that it would point the way to a broad national medical care plan for all persons covered by social security.

2. A controversial bill to vastly increase money available for grants for community facilities — waste plants, hospitals, state medical schools in-

cluded — is active in Congress. One proposal is to vote a billion dollars, to be lent out (at about 3½% interest for 50 years) to communities. The objective here, as in many other measures, is to put people to work on construction projects.

Federal agencies have evolved a number of schemes to get U.S. dollars into circulation faster, and are attempting to work out others. In each case described below, no additional appropriation is involved; money is shifted from a project that is getting a slow start to one that is about ready to begin construction. Also, all totals given represent amounts to be spent by the sponsors as well as the federal government. Here are arrangements already made:

1. In January, the Hill-Burton hospital construction program called for U.S. grants to start buildings valued at \$381 million; this figure has been stepped up to \$405 million by July 1.

2. Between January and July 1, the original plan was to allocate enough money to start \$120 million in construction for health research plants. This has been increased to \$182 million.

3. Before the recession became so prominent an issue, the plan was to grant enough U.S. money to start construction of \$170 million in sewage plants. Under pressure, the total has been increased to \$215 million.

In most cases, when a project is delayed and thus loses its allocation, the grant is re-scheduled for next fiscal year.

American Medical Association is one of the four sponsors of a new Joint Council to Improve

(Continued on page 32)

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WASHINGTON (Continued)

the Health Care of the Aged. The others are American Dental Association, American Hospital Association and American Nursing Homes Association.

The council already has authorized research in a number of directions to (a) analyze the health needs of the aged, (b) appraise available health resources for them, and (c) develop the best possible health care for them, regardless of their economic status.

Effects of this united front action should be felt when Congress takes up the Forand bill and other legislation pointed toward relief for the aged.

NOTES

American Medical Association is asking Congress to strengthen the Civil Aeronautics Administration's medical department so it can properly supervise fliers' physical examinations and advise on other aviation medical matters. AMA also is recommending that an office of civil air surgeon and a medical research laboratory be established with CAA.

Congress has under consideration several plans for reorganizing the Defense Department, two of which would result in elimination of the office of Assistant Secretary for Health and Medical matters.

Progress on appropriations bills indicates more money for research at the Institutes of Health, and at least \$121.2 million (the same as this year) for Hill-Burton hospital construction.

Andrew Biemiller, top legislative man for the AFL-CIO, told a recent delegation just returned from visiting Capitol Hill: "Congressmen are falling all over themselves in wanting to do something in the recession. I think we can cash in on this."

Testifying before a House appropriations subcommittee, Secretary Folsom said coverage under major medical insurance has gone up almost 20-fold in the last five years.

Medicare is working up a new claim form that will have a check-list of common errors on the back; this is intended to eliminate much correspondence now necessary when the physician makes an error on the form.

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The ILLINOIS Medical Journal



Official Journal of The Illinois State Medical Society

MAY, 1958
VOL. 113, NO. 5

Considerations in Convalescent Care of Anterior Poliomyelitis

VERNON C. TURNER, M.D. AND JACK L. ROBBINS, M.D., EVANSTON

There is every reason to hope that anterior poliomyelitis, like smallpox, will eventually become important primarily in a historic sense. The strides taken in this direction represent one of the most encouraging medical progress reports of our lifetime. However, at present it is still an important cause of deformity, disability, and death. There are many unsolved clinical facets to this disease, and opinions differ regarding both the etiology of some deformities and the treatment of the convalescing patient.

Recent advances in polio stimulated interest in the contractures of poliomyelitis. Early resistance to joint motion occurring after the central nervous system irritation [Whether meningeal irritation or a brain stem lesion³ is responsible is a moot question] has subsided may be related to late contracture. It has been suggested by Key²² and McCarroll and Crego²⁷ that this tightness is transient; consequently initial splinting and subsequent return to the activity of daily living furnishes adequate therapy. Others^{5,7,23,39} have recommended a more aggressive approach to prevent late deformity. If the latter be justified, prolonged restriction of joint motion after central nervous system irritation subsides is a poor prognostic sign.

Polio-like deformities without gross muscular weakness or history of polio are seen in medical practice. They may become clinically recognizable many years after a febrile episode that could be construed to have been the acute disease. Muscle imbalance has been a popular explanation for deformity.²⁴ Key²² doubted if this were true in adults but stated it did occur in children. Bennett and Blount^{5,7} have described clinical evidence of altered fibrous and fibroelastic tissue.

Until the recent work of Radding,³⁵ histologic or chemical confirmation of fibrous tissue abnormality was lacking.

Joint, ligamentous, and tendinous deformities present several years following acute poliomyelitis are evaluated in relation to the presence of restricted motion during early convalescence in the original hospital admission. The late occurrence of deformity and the occurrence of deformity in patients originally considered non-paralytic is discussed.

METHODS AND MATERIALS

Consecutive hospital records of patients with a proved diagnosis of anterior poliomyelitis between the years of 1943-1953 were reviewed. One hundred and eighty-one patients who had had anterior poliomyelitis before the age of 17 returned for evaluation after solicitation by

From Evanston Hospital, Evanston, Illinois.

letter and telephone. [460 patients fell within the appropriate age group.] Minimum duration of follow-up was two years. The sites, duration, and degree of limitation of joint motion existing after subsidence of the signs of meningeal irritation were secured from the hospital records. The presence and degree of deformity, paresis, and the general functional ability of patients at the time of recall were recorded.

These descriptions suggested an arbitrary division into slight, moderate, and marked tightness. Use of the word spasm is avoided as suggested by Pollack²⁹. Slight tightness is defined as the mild, transient (less than 14 days) resistance to full range of motion (ROM) present after central nervous system irritation had subsided. Moderate tightness is the considerable discomfort and resistance to full ROM (lasting 10 to 30 days). Marked or severe tightness is the prolonged (over 30 days and often several months) extreme resistance to full ROM associated with tenderness on manipulation.

The degree of scoliosis was estimated radiographically.

The hospital treatment of patients with tightness may be summarized as follows: Passive motion was instituted at the time of admission to the contagious ward. Avoiding pain, all joints were mobilized gently a minimum of four times daily. As fever subsided the tempo of physiotherapy was accelerated. Avoiding fatigue, early active motion was instituted by the time the

temperature had become normal. Kenny packs, hot tub baths, Hubbard tank immersions, and massage were utilized for symptomatic relief of discomfort in the tight areas being stretched.

RESULTS

The time lapse between the acute disease and follow-up (FU) examination varied between two and 10 years; it averaged five years. The average age at onset was 6.6 years. The numerical distribution of patients by age is illustrated in Figure 1. There were 35 completely recovered patients (group I). Forty-four were essentially normal with recognizable paralysis, excellent function and no deformity (group II). The 102 remaining patients (group III) had more severe paralysis limiting activity, required orthopedic appliances, or had deformity of varying degrees. Average and median age at which the disease was incurred and the average and median duration of follow-up are noted in Figure 2. Comparison by age between group III and the overall group is noted in Figure 1.

Twenty-two patients had equinus deformity of the feet. Limited hip motion was noted in 26; 12 of these had classic iliotibial band (ITB) syndromes. It may have been a contributing factor in a majority. Genu valgum occurred three times in this group. Limitation of flexion of the hip with the knee extended was noted in four patients. Cavus deformity of the feet was also notable in four patients. There were two scoliotic patients whose spinal curvature meas-

FIGURE 1 181 PATIENTS

AGE	0-1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
NUMBER OF PATIENTS	3	6	6	23	21	19	23	13	13	19	17	9	7	5	4		3
FOLLOW UP (AVERAGE YEARS)	4.6	4	5.9	5	3.6	4	6.7	4.8	4.5	5	4.7	5.2	4.3	4.9	6		4.5
GROUP III ONLY																	
FOLLOW UP (AVERAGE YEARS)	4.8	4.6	5.1	5	4.1	3	7.3	4.7	5	5.5	3.8	5.7	3.2	5.1	5.1		3.3
FOLLOW UP (MEDIAN YEARS)	4.8	4	4	4.9	4	3.8	4	4.1	4.8	4	3.8	4.2	2.8	3.9	6		3.3

Figure 1. Numerical distribution of patients by age.

FIGURE 2

			AGE AT ONSET		FOLLOW UP (YEARS)	
			AVERAGE	MEDIAN	AVERAGE	MEDIAN
GROUP I	35	NORMAL PATIENTS	7.9	8	5.3	4.7
GROUP II	44	ESSENTIALLY NORMAL PATIENTS	6.5	5	4.6	3.8
GROUP III	102	PATIENTS WITH DEFORMITY OR EXTENSIVE PARALYSIS	6.4	6	5	4

Figure 2. Division according to residua. (Essentially normal patients have definite paralysis without loss of function or deformity.)

ured more than 60 degrees. Four others were easily recognizable clinically but were not severe cosmetically; the degree of curvature varied between 20 and 60 degrees. An additional 21 patients had a mild degree of scoliosis with a spinal curvature of less than 20 degrees. (Curvature secondary to leg length discrepancy was omitted.) Thirteen patients had a leg length differential from $\frac{1}{2}$ " to 2" by clinical examination. The accompanying graph (Figure 3) outlines the eventual deformity as related to tightness in the hospital. Unilateral trunk and abdominal weakness confirmed both by the original muscle grading charts and by clinical examination at follow-up did not always presage scoliosis. Fixed pelvic obliquity was a common denominator for the tight ITB syndromes and scolioses, but the lumbar fascia were found to be tight either on the side of the tight ITB or the opposite or both.

Seven patients who had no evidence of muscle weakness in the lower leg during the original hospitalization had equinus at follow-up. Eight patients with limitation of motion around the hip (including ITB) had had no recorded muscle weakness in this area while hospitalized. Several had been signed out as nonparalytic. Deformity is found in postpolio patients with normal muscle power and all degrees of paresis and paralysis. Some of these patients were not aware of their deformity. Others stated that the deformity had occurred "recently" and were surprised that it might have been related to anterior poliomyelitis. Two patients with flail hips and no tensor fascia muscle had flexion ab-

duction deformity. Normal muscle grading was also found to have been present in two of the patients with mild scoliosis.

DISCUSSION

Comparison of the degree of convalescent tightness with deformity noted at follow-up revealed dissimilar distribution in different areas (Figure 3). In the group with equinus, patients who had had minimal tightness had approximately the same degree of deformity as patients who had had marked prolonged convalescent stiffness. This was also noted in patients with deformity about the hip; the iliotibial band syndrome was more frequent in the "moderate" and "marked" tightness groups. There was a closer correlation between degree of scoliosis and convalescent tightness. The difference could be related to the ease of patient and parent co-operation in following recommendations for home treatment for tight Achilles tendon and hip motion. Back stretching exercises are more difficult to manage. Also gravity combats the tight heel cord and abets the development of scoliosis.

This series did not incriminate convalescent stiffness as a poor prognostic sign when an early and continued stretching campaign was carried out. Knapp,²³ Raisman^{32,33} and Seddon³⁸ support early and continued treatment. Bennett⁵ warns against an early increased body metabolism resulting in hypoxia in the recovering patient. This is supported by Einarson's¹⁴ contention that the centrally placed anterior horn cell is more vulnerable in polio than cells in a more intimate contact with an active circulation. Bennett further blames persistent pain and tight-

FIGURE 3

AREA	NO.	CONVALESCENT TIGHTNESS	NO.	DEGREE OF INDIVIDUAL DEFORMITY AT FOLLOW UP
ACHILLES TENDON	22	x x x	7	DORSIFLEXION -15, ³ -10, -5, 0, 0, 10, 20, ² BILAT. -5.
		x x	9	-5, -5, ¹ 0, 0, 0, 0, 5, 5, 20, BILAT. 15, 5, 10.
		x	6	-7, 0, 0, ² 0, 0, 20, BILAT. 0, 0, 5,
HIP	26	x x x	8	ADD. 0, N, 0, N, 10, 15, 0, N, EXT. 0, 0, N, 0, 0, 5, 10, N, ITB. ✓ ✓ ✓ ✓ G.V. ✓ G.V. SCOL. S S
		x x	12	ADD. ^{R. L.} N, N, N, N, N, N, 0, 35, EXT. -15, -15, ² -5, -10, -5, -5, N, -45, ITB. ✓ ✓ ✓ ✓ ✓ ✓ ✓ ADD. 0, N, 20, N, EXT. N, 0, 0, 0, 0, ITB. ✓ ✓ ✓ ✓
		x	6	ADD. ^{R. L.} 10, 25, 25, EXT. 0, -15, 0, -10, -5, 0, 0, 5, 15, ITB. ✓ ✓

Figure 3. Comparison of convalescent tightness to the deformity at the time of follow-up examination.

- XXX — Marked — Prolonged tightness (over 30 days.)
 XX — Moderate — Considerable discomfort and resistance to full range of motion lasting up to 30 days.
 X — Slight — Transient (less than 14 days) resistance to full range of motion.

ness on excessive early heat, passive motion, and improper splinting. It is generally agreed that fatigue preceding and during the febrile state leaves the anterior horn cell more susceptible to the noxious effects of the virus. Judgment is important in deciding how active the initial program is to be. Early gentle passive motion of all joints is an excellent means of maintaining mobilization^{6,22,37} and should not result in increased metabolism if central nervous system irritation has subsided. Therapy should start early and continue indefinitely.

After experiments involving 2,000 laboratory animals, Hines and Wehrmacher¹⁹ conclude:

"It has long been held by a rather large group of clinicians that activity and fatigue in some way interfere with neuromuscular recovery

FIGURE 3A

AREA	NO.	CONVALESCENT TIGHTNESS	NO.	DEGREE OF INDIVIDUAL DEFORMITY AT FOLLOW UP
BACK SCOLIOSIS	27	x x x	10	<20° ADD. FIND. 20°-60° ADD. FIND. >60° ADD. FIND. 6 1 ITB. 2 1 ITB.
		x x	13	10 3 1 ITB.
		x	4	4 1 G.V. 1 KL.
LIMITED FLEXION	4	x x x	1	ALL MOD. BACK TIGHTNESS
		x x	2	
		x	1	
HAMSTRING	4	x x x	2	STRAIGHT LEG RAISING TO APPROX. 120°
		x x	1	
		x	1	
FEET CAVUS	4	x x x	1	EARLY
		x x	2	EARLY, SEVERE
		x	1	MOD.

- N — Normal
 G.V. — Genuvalgus
 ITB — Ilio-tibial band syndrome
 L — Lordosis
 KL — Kypholordosis
 1. Minus 20° prior to triple arthrodesis 11/51 and wedge tarsectomy 6/53.
 2. Muscle transplant-peroneal to anterior tibial two years prior.
 3. Achilles Tendon lengthening three years prior.

following peripheral nerve injury Our findings indicate that immobilization of muscle at the onset of and during the time reinnervation is taking place tends to retard the recovery of muscle mass and strength."

It is fine to protect the anterior horn cell but there is no foundation for overprotecting the muscle. Temporary exhaustion and late cavitation in the cord probably explain the cases in which the physiotherapist attributes overwork to decrease in muscle power. Mead²⁸ denied the presence of muscle damage from the "use of stretching, bracing, ambulation, resistive exercise, and early return to school or work." This philosophy is hard to improve upon.

It is neither practical nor economic to have the physical therapist responsible for the latter

stages of treatment. The responsible patient and parent can work oftener and more effectively than the therapist. Physical therapy departments are teaching centers as well as treatment centers.

The late development of deformity in children is an impressive finding. Undoubtedly it becomes manifest at periods of rapid growth.^{6,38} Convalescent patients deserve intermittent follow-up for years. It is surmised that deformity due to fibrous tissue contracture is likely to become manifest at times of rapid growth because the discrepancy between the anatomic unit (arm, leg, back) and the span of fascia becomes more marked. This is also true of "nonparalytic" patients. Poor posture has an organic pathologic basis in these "recovered" patients^{6,31}.

The tightness evident in flail areas indicates an etiology other than muscular imbalance. At the First International Polio Conference, Knapp²³ stated that the muscle imbalance theory of deformity was fundamentally incorrect. Blount⁷ describes "myofascial changes." Bennett⁵ describes . . . "early and rapid changes in fibrous and fibroelastic tissues of the musculoskeletal system."

Although histologic muscle changes occur earlier than one would expect after denervation^{8,12,19,42}, myositis is only occasionally noted^{1,10,9,42}. It does occur at the site of inoculation in laboratory animals³⁶ and is enhanced by cortisone². The polio virus has been cultured in extra neural tissue^{15,25,35}. It has been isolated from human muscle²¹ and viremia is reported to occur before clinical disease²⁰. Myocarditis has been reported^{11,37}. This is evidence of its extraneurotropic character. The clinician has mute evidence that connective tissue is primarily or secondarily involved.

Radding³⁵ shows that the collagen swelling after acetic acid bath is greater in fascia lata removed from polio patients than in nonpolio patients if they are compared by age. This is based on the relative quantity of hyaluronic acid. Kovacs²⁴ recently described enzyme changes in tissue cultures infected with polio virus.

It is possible that either the denervation or the general viral manifestation or both are responsible for contracture. Guyton and Reeder¹⁸ demonstrated that dogs develop pain and contracture within four days after anterior rhizotomy. Contracture was progressive for the 39

day duration of the experiment. It occurred in the paralyzed segment. Tower⁴¹ and Sherman³⁹ describe a more delayed onset of contracture after denervation. Bender⁴ relates this contracture to hypersensitivity of denervated muscle^{29,40}.

Undoubtedly there are instances where muscle imbalance deforms but in structures with a heavy fascial element—plantar fascia, tensor fascia, Achilles tendon, and undoubtedly in the back—there is ample evidence for a better explanation. There is a tendency to be fatalistic about therapy if one considers that most polio deformities are secondary to muscle imbalance. This fatalism is not justified because contracture appears to be primarily a phenomenon of fibrous tissue.

CONCLUSIONS

1. Post—poliomyelitis deformity is described as related to convalescent tightness.
2. Recognition that late deformities occur even in the absence of identifiable paresis and paralysis necessitates controlled long-term follow-up in children.
3. The etiology of contracture and the rationale for an aggressive approach is discussed.

636 Church St. (V.C.T.)

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Intussusception in Adults

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THE operative treatment of intussusception in adults has been described in case reports appearing in the literature since John Hunter published his first complete description in 1793.⁴ The incidence in persons over age 14 years is between .003 and .02 per cent of hospital admissions.^{2,5,7} Adults account for approximately 5 to 10 per cent of all intussusceptions; the remaining 90 to 95 per cent appear in infants under age 2 years.¹¹

Intussusception may be classified in several different categories including the location, the degree of acuteness, and etiologic factors. It may occur anywhere in the gastrointestinal tract below the cardia and may be classified by location in (1) Gastrogastic, (2) Gastroduodenal, (3) Enteric, (4) Ileocolic, (5) Ileocecal, (6) Appendicealcecal, (7) Colocolic, or (8) Stomal. A compound intussusception contains one invagination inside another. Most intussusceptions occur in the direction of normal peristalsis although occasionally they may be retrograde. The stomal category includes, chiefly, jejunogastric invaginations following gastroenterostomy and prolapse of the colon or ileum by intussusception to the exterior through a colostomy or ileostomy.

Brayton and Norris⁴ reported a series of 745 patients in which 52 per cent of intussusceptions originated within the small intestine, 38 per cent were colocolonic in origin. The remainder were stomal and gastroduodenal. In their series there were four cases of multiple intussusceptions. For the sake of comparison in infancy and childhood intussusceptions, 4 per cent were enteric, 94 per cent ileocolic and ileocecal, and only 2 per cent were colocolic.⁴ It is important in adults to differentiate clearly the ileocolic from ileocecal type since the causative lesion in the ileocolic intussusception is enteric in location and, therefore less likely to be malignant than in the ileocecal type where the lesion lies

within the cecum. An ileocolic invagination involves prolapsed ileum through the ileocecal valve which remains at a relatively fixed point in the right lower quadrant. In ileocecal intussusception, the ileocecal valve or adjacent cecum is the leading point and invaginates the ascending colon drawing the ileum behind it.

The mechanisms precipitating intussusception are not specifically known. However, stimulation of intestine normally produces muscular constriction about the point of stimulus and relaxation below.⁴ Lesions within or adjacent to the bowel which alter a normal peristaltic pattern appear capable of starting invaginations. The lesion usually leads the intussusception forming its apex, but rarely it may remain at the base of the intussusception and the apex of the apparently normal bowel preceding it.¹⁴ The distance the intussusception advances varies according to the length of the mesenteries of both the intussusceptum and the intussusciptens.¹⁸

In adults, intussusceptions usually appear secondary to a definite lesion whereas in children 95 per cent are idiopathic.⁴ In the review published by Brayton and Norris,⁴ tumors were the cause of intussusception in approximately 54 per cent, of which 21 per cent were malignant and 33 per cent benign tumors. Malignancy caused 56 per cent of all colonic and approximately 15 per cent of all small intestinal intussusceptions.¹⁷

The classification of intussusceptions as to acute, subacute, and chronic depends upon the clinical manifestations. In general, intussusceptions in adults rarely appear as an acute fulminating disease, whereas, in infancy that is the usual observation.¹² The majority of adult cases are chronic or subacute in nature with the duration of symptoms varying from hours to days.⁵

In general the symptoms of intussusception in adults are suggestive of a partial bowel obstruction: intermittent abdominal cramping pain, recurrent nausea, and vomiting.¹³ The rate

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of defecation may be normal or there may be constipation, diarrhea, or alternately both. A history of blood in the stool is less frequently encountered in adults than in infancy and childhood. Blood was found in stools in approximately 38 per cent of adult cases in a series reported since 1947 as compared with 73 per cent in infancy and childhood.⁴ Abdominal masses are palpable in approximately 49 to 50 per cent of adults whereas 77 per cent of children present a palpable mass.⁴ Roentgenographic studies are of primary importance in establishing diagnosis. Enteric intussusceptions may produce sufficient obstruction to present an abnormal small intestinal pattern. Colon obstruction studies by means of barium enema technique present an apex of invagination or coil spring and ensheathment pattern as barium streaks between the intussusceptum and the intussusciens.¹⁹

The management of intussusception varies with the location of the lesion, the acuteness of symptoms, and the general condition of the patient. Two cases will be presented which exemplify some slight deviations from the above mentioned generalities.

The first case is that of a 33 year old adult white male who was admitted to the hospital because of abdominal pain and syncope. He had suffered from rather vague abdominal intermittent discomfort for approximately 3 weeks preceding the day of admission. Several hours before admission pain became severe with localization in the right lower quadrant, nausea and vomiting ensued, and subsequently diarrhea with many liquid stools. Later the stools became grossly bloody, the patient became progressively weaker and fainted. The significant fact in the past history was at age 3, an intussusception occurred which required operative intervention and at that time an appendectomy was performed.

Physical examination revealed an extreme state of shock. The heart rate was 180. Rhonchi were present in both lung fields. Abdominal examination revealed a marked degree of tenderness in the epigastrium with a palpable mass in the right upper quadrant. There was a well healed right lower quadrant incisional scar with no herniation evident. Rectal examination revealed the presence of some bloody material, but no indication of any active bleeding points in the anal canal.

The patient was treated for shock. X-ray of the abdomen revealed gas in the upper intestines and stomach. The patient had a barium enema after his shock had been corrected and these films show an intussusception involving the ascending colon. This did not respond to conservative measures in the X-ray department so the patient was taken to the operating room where a cecal colonic intussusception was found and reduced. Resection was not necessary. There was no evidence of tumor or other etiological factors that might be demonstrable at the time of surgery. The patient's postoperative course was uncomplicated. Subsequent barium enema X-ray studies six weeks later showed no evidence of any lesion. The patient was last examined six months after surgery at which time he was free of any further complications. He has not been examined since because he moved out of the state.

The interesting feature about this case is the fact that the patient had such a long interval between episodes of intussusception. The first occurred when the patient was 3 and the second, some 30 years later, with no apparent pathologic change present as a precipitating factor.

The second case of interest is that of a 55 year old white female who initially was seen because of severe, recurrent, crampy, abdominal pain with abdominal distention. In the past history the patient had had a ruptured appendix following which considerable period of distention and drainage occurred in 1925. In 1938 a supracervical hysterectomy had been accomplished. In 1944 the patient had a right renal suspension.

The physical examination showed no significant abnormalities other than the incisional scars without external herniations evident and the signs and symptoms suggesting a small bowel obstruction. There was a progressive increase in the amount of distention with characteristic changes of small bowel obstruction seen on X-ray. A Cantor Tube was passed for affecting decompression. A subsequent laparotomy was accomplished because the bowel obstruction persisted. It was necessary to release adhesive bands to effect reduction of a partial volvulus and correct the small intestinal obstruction. The long tube was removed after the patient began passing flatus on the fourth postoperative day.

The patient had a gradual degree of improve-

ment. However, in the second week postoperatively she began having recurrent bouts of nausea and occasionally some vomiting without any evidence of distention. Her bowel habits were re-established, but occasionally some looseness of the stools was noted. Medical consultation was obtained at that time because of an elevated NPN which confused the picture considerably. Intravenous fluids were given to supplement oral intake. The patient, on the 20th postoperative day, began having upper abdominal distress with associated unremitting vomiting. At that time a flat plate was taken which showed a partial small bowel obstruction. Again, a Cantor Tube was passed but this did not seem to alleviate the patient's symptoms. She seemed to become more distressed with an increasing degree of pain; an increase in her pulse rate and the passage of some mucus and questionably slight blood-tinged stools per rectum were noted.

A mass was then palpable in the upper abdomen that extended in a curvilinear manner from the left upper quadrant down across the lower abdomen toward the right lower quadrant. A barium enema study was accomplished which revealed no significant abnormalities; consequently, a small amount of barium was introduced through the Cantor Tube. This revealed initially the bowel to have the appearance of an inflammatory lesion but as the serial films were taken it showed a little progression of the barium through the area of obstruction into the ileum and cecum at the end of six hours. The intestine was aspirated to remove the barium through the tube. A laparotomy was accomplished at which time a mass of compound intussusception involving approximately two-thirds of the small intestine was found. The bowel was ischemic and very friable. Reduction was impossible. Therefore, a primary resection was performed and an end to end anastomosis of jejunum to the lower ileum.

The patient's postoperative course was one of improvement with no significant complications occurring.

In this picture of the fixed specimen we see the compounded aspect of the intussusception with no primary cause evident. This is another view showing the same general area, but from another aspect. Microscopic tissue section revealed no significant changes other than those associated with the ischemia.

In retrospect it was deemed that the probable cause of the intussusception had occurred while the long tube was in place.³ Fibrinous adhesions of the intestinal serosa prevented the telescoped small bowel from becoming completely reduced after the long tube was removed and the patient apparently was having a low grade chronic intussusception from the first week following surgery until it became compounded and an acute emergency developed. The persistently elevated NPN had diverted our attention until the acute pains occurred and the development of an abdominal mass led us to suspect this complication.

SUMMARY

Several of the aspects of adult intussusception have been discussed with respect to etiology and symptoms. Two cases have been presented, one of which exemplifies the possible recurrence of intussusception as long as 30 years after an initial episode in infancy without organic cause. The second case represents a complication of long tube intubation, with telescoping of the intestine on the tube long enough to allow adhesive bands to cause a mass. This compounded itself and developed into a compounded intussusception without any other etiologic factor being evident.

In conclusion, adults experiencing intermittent crampy abdominal pain may have intussusception as a cause without a demonstrable primary lesion.

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Medical education suggestion

All are familiar with the effect of changing social and economic conditions on medical care. No one can doubt the beneficial effect of some aspects of those changes. Neither can one escape the problems they have caused in respect to medical teaching. Fortunately, there is a potential solution of those problems if farsighted and understanding policies and action will be taken by those concerned with the administration of federal, state, and local laws dealing with public aspects of medical care and by medical organizations. I refer to such federal legislation as the amendments to the so-called Social Security Act, providing medical care to certain categories of those receiving public assistance. In those acts and others of similar nature which may be adopted lie some of the sorest problems of medical education. The solution is one which can operate only to the benefit of patients, the public, and medical education. All that is needed is that public agencies and physicians, acting mainly through their societies, permit agreements which

will channel such recipients of medical care to teaching hospitals and outpatient departments to the extent to which such patients are needed. It is exactly these persons whom the medical profession has prided itself on caring for without compensation and which in teaching would continue this tradition. Furthermore, savings from the remission of professional fees for the care of those patients involved in teaching would make additional money available for hospital, outpatient, and home care beyond that otherwise possible. To those among the practicing profession who raise objections to such a procedure, let me point out that the loss of income to private physicians would be small and — relieved of the burden of supporting hospitalization and outpatient care — medical schools could approach more closely the situation in which the university idea prevails. Faculty are recompensed mainly on the salary basis with private practice sharply limited to needs other than support of the general program of education. *John B. Youmans, M.D. Who is Responsible for the Medical Schools? J.M. Educ. Dec. 1957.*

Hemoperitoneum: A Differential Diagnosis with Notes on Surgical Management

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HEMOPERITONEUM denotes the presence of bloody fluid within the peritoneal cavity. The disorder can be suspected in the presence of hypovolemic anemia, signs of peritoneal irritation, and evidence of collapse of the patient. Whole blood outside of the cardiovascular-tubular system is irritating to the body tissues; the peritoneum responds by a severe inflammatory reaction that tends to add to the fluid content of the intraperitoneal blood. The causes of bloody peritoneal fluid can be listed as ectopic pregnancy, ruptured graafian follicle, hemorrhagic acute pancreatitis, metastatic peritoneal carcinomatosis, superior mesenteric vessel thrombosis, acute thrombocytopenic purpura, volvulus, endometriosis, and trauma.

Acute trauma is readily diagnosed and usually the presence of intraperitoneal blood is suspected when there are external puncture or lacerated wounds. Nonpenetrating trauma may result in delayed intra-abdominal bleeding, which often is characterized by referred shoulder pain, in association with hypovolemic anemia. The remaining etiological factors give rise to pathological conditions that result in a fairly typical clinical picture of acute abdomen plus certain characteristic signs and symptoms. Ectopic pregnancy, ruptured graafian follicle, and endometriosis are confined to the female. A missed menstrual period and metrostaxis, associated with an episode of fainting (due to acute blood loss) suggest a tubal pregnancy. Intermenstrual lower abdominal pain, disabling but not necessarily causing bed confinement, is characteristic of ovulation, the cause of a moderate bloody accumulate in the true pelvis. In the young postmenarchal female this often is confused with acute appendicitis. Endometriosis mimics low bowel

obstruction, pelvic neoplasm, and retroversion of the corpus uteri, especially in the absence of the characteristic increased abdominal pain during the menstrual period; in some instances dyspareunia is a complaint second only to menorrhagia. The absolute diagnosis of endometriosis rests on the micropathologic demonstration of endometrial tissue ectopically placed (i.e. bowel wall, omentum, peritoneal surface).

Hemoperitoneum is a sterile peritonitis, and the clinical picture of adynamic ileus is noted. Mechanical bowel obstruction is seen in endometriosis, intra-abdominal carcinomatosis, and volvulus. Intraperitoneal blood tinged fluid associated with volvulus indicates vascular impairment and bowel wall necrosis; in a gross sense, the presence of similar fluid in carcinomatosis suggests peritoneal implants and tissue necrosis, leading to small blood vessel extrusion of free blood. In thrombocytopenic purpura, bloody peritoneal fluid is only one of the manifestations of a defective blood clotting mechanism and is noted and recorded during emergency splenectomy; purpura, normal clotting time, increased bleeding time, poor clot retraction, peripheral blood thrombocytopenia — all make this symptom complex indicative of a hypersplenic syndrome.

Hemorrhagic pancreatitis and superior mesenteric vessel thrombosis fall into a special category, since they both have characteristic signs and symptoms (especially the abdominal pain and cardiovascular collapse), but no diagnostic laboratory criteria which indicate to the medical attendant the course of therapy to follow. Serum amylase determination, so valuable as a diagnostic test in acute pancreatitis, may not be increased; if it is increased, the disease process may be coronary thrombosis, acute cholecystitis, or a posteriorly situated perforating duodenal ulcer which has burrowed into neighboring pancreatic tissue. The presence of aortic atheromata,

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bacterial endocarditis, a healing coronary infarct (which can cause a mural thrombus to form), rheumatic endocarditis, or cardiac fibrillation associated with the clinical picture of an acute abdomen strongly suggests mesenteric vessel thrombosis. A mesenteric thrombosis propagating proximally can involve the renal vessels and lead to oliguria or anuria. At laparotomy the incising of the mesentery and the absence of rapid blood flow help establish this diagnosis.

It is recognized that there are additional laboratory tests, such as the blood cell counts, the electrocardiogram, the Aschheim-Zondek test, the use of roentgenograms, to aid materially in arriving at a correct diagnosis of the aforementioned disease states.

During laparotomy, bluish discoloration of the peritoneum prior to its incision will often suggest to the surgeon the presence of intraperitoneal bloody accumulate. The character of the bloody peritoneal fluid, when first observed, can indicate the possible etiological factor. Frank blood will be seen in ectopic pregnancy, trauma, and acute thrombocytopenic purpura. The exudate will be tinged in the remaining causes listed previously.

Since two of the major indications for laparotomy are acute intraperitoneal hemorrhage and perforation of a hollow intra-abdominal viscus, the addition of purulent material to a bloody exudate indicates rupture at some point of the gastrointestinal tract of over 12 hours' duration. On noting the presence of a hemorrhagic exudate, the operating surgeon must then carefully examine the abdomen for the possible sites of origin. The examination should be gentle and methodical. Since in a significant percentage the sites of bleeding arise within the peritoneal area of the true pelvis, examination of the pelvis first, especially in the female, often will confirm the diagnosis. From the lower abdomen the examination can take in the large and small bowel, the lesser omental area, and the other organs in the upper abdomen. As the exploration proceeds the amount of blood within the peritoneal cavity should be estimated and its replacement, after careful typing and cross matching, performed during the surgical procedure. With rapid blood loss, as with ectopic pregnancy and trauma, elaborate surgical technique may be foregone in an effort to control blood loss. By means of suction

apparatus and moistened towel-like pads the site of blood loss should be carefully visualized and subsequently clamped, ligated, or sutured as indicated. Traumatic injury to large important vessels such as the aorta, the renal arteries, and the common iliac arteries should be treated by primary suture repair or venous autografts; when available, arterial homografts are more suitable.

Large amounts of free blood in the peritoneal cavity may obscure the site of origin. Removal of large clots is best managed manually or with a large bore sterile glass tubing suitably attached to an efficient suction apparatus. Small bore suction tips, machines that generate weak negative pressure, and so-called stick sponges are inadequate in such a situation. In the absence of an efficient suction machine, large sterile lap pads, moistened in physiological saline, can be used to sponge out the blood, a count of the pads being made to estimate in some degree the amount of vascular fluid loss.

In the absence of infection and purulent exudate, postoperative abdominal drainage need not be performed. Conversely, in the presence of a purulent exudate, such as an ulcerating perforating carcinoma of the large bowel or a perforated bowel due to volvulus, postoperative drainage with large doses of antibiotics over an adequate period of time is indicated. Drains are preferably placed through stab wounds in the midaxillary line of the abdominal wall so that the drainage will be dependent, commensurate with the postoperative position of the patient, which usually is semirecumbent. Drains opening on the midline of the abdomen or near it demand that fluid goes to the top, as in a bottle reservoir, before it reaches the outlet and is extruded from the abdominal cavity. Laterally placed stab wound drains will take advantage of the force of gravity and remove unwanted exudate expeditiously.

Since the etiological factors of hemoperitoneum are limited, the preoperative consideration of these factors can decrease operating time and prevent additional peritoneal irritation associated with prolonged exploratory maneuvers. Knowledge of the several mechanisms involved will provide a rapid assessment and a rational approach in hemoperitoneum.

The Treatment of the Climacterium

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I have chosen to speak to you tonight about the climacterium, a period of life that provides an excellent opportunity to discuss the relationship between soma and psyche. An understanding of this relationship enables the physician to treat symptoms as they emerge in a multifiform and changing fashion, as well as the underlying causative factors responsible for their appearance.

The word itself is derived from a Greek root meaning literally, "rung of a ladder." Thus the climacterium is characterized as one of the many steps in the ladder of life. Hopefully, one may infer that it represents a stage of further development and growth with progression to the next higher rung. Less hopefully, the stage is symbolized by the topmost rung and the next step must be in a downward direction. In any event, the popular term for the climacterium, change of life, is an excellent description of the dynamic character of this period.

First, let us discuss the female climacterium because the clinical picture is more well defined and easily recognizable than in the male. It is a particularly significant event for every woman because it marks the end of one of her most important functions in life, childbearing. It is readily understandable, therefore, that the termination of reproductive capacity should be accompanied by a most profound psychological stress. That this stress may manifest itself in a variety of symptom complexes is self-evident from a tabulation of the more frequent complaints occurring at this age: hot flushes, irritability, moodiness, fatigue, backache, anorexia, indigestion, constipation, insomnia, and a host of others.

Since it is reasonable to assume that the clinical picture is the result of both bodily and mental changes, I thought it best to divide

symptomatology into three categories: symptoms of physiologic origin, symptoms of psychogenic origin, and symptoms due to a combination of the two [psychophysiologic].

In the first category, three symptoms actually characterize the climacterium in the woman and herald its onset: the menopause or literally a disappearance of the menstrual cycles; loss of reproductive ability; and vasomotor phenomena described as the hot flashes. That these manifestations are a direct product of the new physiology is unequivocal. Moreover, were we to be more precise in our terminology, these manifestations would not even be called symptoms since this implies a diseased or abnormal condition of some kind. Rather they would be described as a normal phase of maturation, a predictable law of nature inevitably occurring in the life of every woman. Indeed, were it not for the remaining etiologic factors, this changing period would pass with little notice and seldom give rise to the complex picture we are discussing.

The psychologic impact of this law of nature produces a second category of symptoms, the psychogenic, based primarily upon the patient's integrative capacity to accept and adapt herself to the change. For the woman who has had the good fortune of bearing and rearing healthy youngsters to a state of mature adulthood, who can take pride in her own achievements and those of her family, and who is gifted with the talent and ingenuity to develop new interests and reactivate old ones, the psychologic problem should not be difficult. But where there have been no offspring, or where the achievements of children have been disappointing, the ending of any further hope for success in this area will require a more intensive adjustment that is not so easily accomplished. Some of the unresolved emotional conflicts commonly seen at this time of life are:

(1) Children begin to leave home, and the

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patient may find herself with nothing to do.

- (2) The children may have been a disappointment and left home after much quarreling.
- (3) Social aspirations of the patient and her family may not have been realized.
- (4) There may be a loss of the marital partner by illness or death.
- (5) Changing economic conditions may require an adjustment to a new way of life or moving to another community.
- (6) The loss of any hope of success at a long-cherished career may become apparent.
- (7) Parents, who are now in their 60's and 70's, may become invalids and an additional responsibility.

These examples are but a few of the many complexities that are likely to occur during the climacterium and produce levels of anxiety and tension easily displaced onto a somatic substrate. When this occurs, these displacements serve to enhance the severity of the somatic problems, and are then presented to the physician with a multi-determined origin, tenacious and resistive to the usual symptomatic treatment. These conversion reactions, as they are called, often have served the patient previously as a defense against a threatening emotional conflict and may have been her characteristic response to stresses throughout life. The ultimate form of these conflicts may be highly disguised and not easily related to the psychic origins on a superficial examination. This masking of emotional problem by a facade of physical ailments gives rise to the concept of resistance to seeing the true nature of the problem. Thus, the patient who is hurt by the loss of a son newly inducted into the service may eventually express this hurt by an aching back, joint pains, or just plain moodiness. To accept this necessary change in her life and develop other interests may be so difficult to cope with, the patient resists by concentrating more and more on an older physical ailment of some kind and presents the physician with a sore spot for his attention and treatment.

Another source of anxiety during this period has to do with numerous misconceptions about the real nature of the menopause. These old wives' tales traditionally describe the menopausal

woman as physically unattractive, aged, and asexual. The horrors of the menopause have been described in the literature of all nations and may be seen in the folklore and mythology of many communities. In fairy tales, she is described as an old witch whose appearance is ugly and terrifying and whose impulses are sadistic and cruel.

The basis for the third category of symptoms is a biochemical change that produces many fluctuations in the hormonal titers and has been well substantiated by numerous studies. A decrease in the output of estrogen by the ovaries occurs and the pituitary gland, in an effort to stimulate the ovary to produce more estrogen, increases the output of gonadotrophins. The higher gonadotrophin titers are easily demonstrable in blood and urine and may be associated with adjustments in the output of other endocrine glands which, so far as I know, are not clearly defined at the present time.

Hans Selye and his co-workers have written extensively about the interrelationships of the ductless glands and their reactions to nonspecific stress. They have shown that the aforementioned hormonal changes are, in themselves, a kind of nonspecific stress. This being the case, the climacteric physiology may give rise to Selye's general adaptational syndrome and result in a further fluctuation of biochemical levels. I am not familiar with the precise nature of these fluctuations but, for the purpose of this discussion, it is only necessary to point out that such physiological changes do take place and are perceived by the psyche. Our minds do not perceive the changes in terms of increases or decreases of estrogen and cannot tell us much about their nature or location except in the vaguest terms.

The patient becomes aware only of a generalized apprehension, perhaps difficulty in concentration, irritability, or insomnia. Attempts to control these symptoms by concentrating harder or refusing to indulge in irritable impulses will lead to a stage of exhaustion, both physical and mental, known in the older psychiatric literature as neurasthenia.

A discussion of the climacterium would not be complete without mention of the condition in the male. Many studies indicate that the climacterium is not a constant event in the life of all

men. In general, it appears that most males do not experience any fluctuations in the production of sex hormones, as does the female, and that fertility often extends well beyond the average age in the female. However, in some cases hormonal changes are definite, fertility is significantly decreased, and potency is affected. The changes usually are gradual and may extend over a period of years. The age of onset may vary greatly and some men have been known to enter the male climacterium as early as the third decade, while in other cases it appeared much later in the senium. For the male, a division of the symptomatology into three categories is possible only when an actual climacterium takes place. The diagnosis must be demonstrated by biochemical tests, sometimes repeated over an extended period of time. Because of the gradual development and inconstancy of the condition in the male, the correlation of symptoms with psychic and somatic origins is not as discrete and sharply defined as in the female. Nevertheless, these categories can still be useful in understanding the male climacterium and can serve as a model for the evaluation of every symptom the patient brings to the physician.

It is said that, of all the complaints heard in the general practitioner's office, one-third are psychogenic in origin. It is reasonable to deduce that another third are physiologic in origin and the remainder are a mixture of the two. If this is the case, it no longer becomes a question of whether an ailment is functional or organic, but rather how much each of these factors contributes to the total clinical picture. Such an approach can contribute greatly to a treatment program for the climacterium and many other diseases.

The physiologic category of symptoms includes two phenomena that are essentially normal phases of maturation and might better be described as laws of nature: the menopause and the end of the reproductive cycle. These phenomena bring forth a form of treatment that is appropriate to the care of every patient in the climacterium and might be called educational psychotherapy. Dr. Harry S. Friedlander¹ expresses extremely well the importance of a frank discussion of the nature of the menopause with each patient. He describes the use of easily understandable language and an exposition of

the bodily changes to be expected. For patients who have gathered a host of traditional misconceptions concerning the nature of the menopause, such an explanation will bring forth many questions that can provide a basis for discussion and correction of these misconceptions.

Treatment of the vasomotor phenomena is easily accomplished by the use of estrogenic substances. I have been told by competent gynecologists that hot flashes are not a serious problem for many women and that once the physiological changes stabilize themselves, medication becomes unnecessary. Although there may be an occasional patient who will require estrogen for an indefinite time, the use of these drugs for every patient in the menopause on a permanent basis is open to serious criticism. This aspect of permanency unnecessarily enslaves many women to weekly or bi-weekly visits to the physician's office for a "shot," oftentimes administered by a nurse in the outer office. Though such a regimen can be highly supportive and beneficial to the patient during the early stages of treatment, it will sooner or later lose its effectiveness and deprive her of many opportunities to fully comprehend the nature of her condition.

In the treatment of symptoms due primarily to psychogenic causes, the family doctor can be helpful. He may have known the patient for years and be familiar with the family constellation, economic background, and her religious, social, and communal interests. New developments in the life of the patient, or older experiences that might contribute to neurotic symptoms may be familiar to the family doctor and place him in the best position of all to discuss them effectively with the patient. When the problem becomes more complex, however, psychiatric management is indicated and should be arranged.

For the category of symptoms due primarily to psychophysiologic causes, the new tranquilizing drugs are extremely useful. They are superior to the older sedatives because they do not cloud consciousness and thus permit the patient to function without impairment of intellect. Such drugs as Thorazine®, Compazine®, Sparine®, or Atarax® are useful in treating precisely the combination of factors that make up this category. Irritability, apprehension, and un-

easiness often are alleviated with the use of these drugs. Insomnia, which also belongs in this category, can be treated by the usual routine sleeping medication.

For patients who become too unstable to function in the home environment, confinement in a hospital may be indicated. Hospitalization can be helpful at this time because it enables the physician to visit the patient frequently and develop a positive therapeutic relationship that can be continued later on an out-patient basis. Hospitalization itself is a supportive maneuver and removes the patient from an environment that may be exceedingly distressing. In the process of hospitalization, the patient becomes the center of attention in a treatment program individualized to her needs and the narcissistic gratification involved, combined with the necessary planning for posthospital care, can be a valuable therapeutic experience for the patient. Responses to medication can be observed more carefully and promptly adjusted. As the medication becomes effective in reducing anxiety, the ego is less threatened by the physiological forces and can proceed to a mastery of the essential psychological problem of the entire period. To describe this problem in its simplest terms, one might say that the patient is faced with a rapidly changing set of relations to the family and community and she needs adjustment to these changes in terms of new interests and activities.

In closing, I would like to quote a few lines from a book that was called to my attention while I was preparing this paper. It is a thoughtful, perceptive passage from the recent best-seller, "Gift from the Sea," by Anne Morrow Lindbergh, and expresses the psychological problem of the climacterium and its solution exceedingly well:

"The tide of life recedes, the house with its bulging, sleeping porches and sheds begins, little by little, to empty. The children go away to school and then to marriage and lives of their own. It is true that the adventures of youth are less open to us. Most of us cannot, at this point, start a new career or raise a new family. Many of the physical, material, and wordly ambitions are less attainable than they

were 20 years ago. The primitive, physical, functional patterns of the morning of life, the active years before 40 or 50, are outlived. But there is still the afternoon opening up which one can spend, not in the feverish pace of the morning, but in having time at last for those intellectual, cultural, and spiritual activities that were pushed aside in the heat of the race. We often miss the flowering that waits for afternoon for is it not possible that middle-age can be looked upon as a second period of flowering, a second growth, even a kind of second adolescence. It is true that society in general does not help one accept this interpretation of the second half of life and, therefore, this period of expanding is often tragically misunderstood. Many people never climb above the plateau of 40 to 50. Discontent, restlessness, doubt, despair, longing, are interpreted falsely as signs of decay. Instead of facing them, one runs away, one escapes into depressions, nervous breakdowns, drink, love affairs, or frantic, fruitless overwork. One tries to cure the signs of growth as if they were devils when really they might be angels of annunciation, of a new stage in living when, having shed many of the physical struggles, the worldly ambitions, the material encumbrances of active life, one might be free to fulfill the neglected side of oneself. One might be free for growth of mind, heart, and talent, free at last for spiritual growth."

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Experiences with an Oral Hypoglycemic Agent in Diabetes Mellitus

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Recently the oral hypoglycemic agent, tolbutamide (Orinase®*) was released for regular prescription use of the treatment of diabetes mellitus. The manufacturer has emphasized the need for careful observation of all patients placed on this product. Not all diabetics are suitable subjects for treatment with this agent and careful selection of cases is essential. A complete study of the problem of the effect of oral sulfonylureas is presented in detail in the November, 1956 issue of *Metabolism* which is entirely devoted to this subject.

For many years attempts have been made to produce effective oral therapeutic agents for diabetes mellitus. Few have been effective clinically and most have been unsatisfactory for therapeutic use. Franke and Fuchs¹ and Bertram, Bendfeldt, and Otto² reported the blood sugar lowering effect of 1-butyl-3-para-aminobenzenesulfonylurea (BZ55) in human diabetics. These investigators found that this substance produces hypoglycemia in normal human volunteers, most diabetics over 50 years old, and in laboratory animals. It was not effective in patients who had been diabetic for 10 or more years or who had been treated for several years with insulin. Satisfactory results usually were not obtained in the severe or juvenile diabetic or in the treatment of diabetic acidosis. Similar findings have been reported by Ridolfo and Kirtley³ in a series of 18 diabetics.

Since this compound is a sulfonamide derivative, antibacterial effects are present. By substituting a methyl group for the amino group a compound, 1-butyl-3-p-toluene sulfonylurea was produced; it has hypoglycemic effects but

no antibacterial properties. Mirsky, Diengott, and Dolger⁴ report a significant hypoglycemic response in 34 diabetics who were given this compound. Orinase has produced substantial decreases in the fasting blood sugar levels of rats, dogs, and rabbits.⁵

We have given Orinase for a period of 4 months or more to eight diabetics in the Metabolic Clinic of the University of Illinois Hospitals and the Diabetic Clinic of Provident Hospital. The drug was administered to all patients according to the following dosage plan: Two and one half grams on the first day, one and one half grams on the second day, and one gram daily thereafter. Fasting blood sugar levels, 24 hour urine glucose, and blood counts were followed.

CASE REPORTS

Case I: A 63 year old female was admitted to the hospital for treatment of arteriosclerotic heart disease with decompensation. Urinalysis revealed a 4 plus glycosuria and the fasting blood sugar was 476 mg. per 100 ml. There was no history of diabetes and she had been found to have a normal blood sugar three months prior to this hospitalization. The patient was placed on a diabetic diet of 1,700 calories (CHO, 180, P 90, F70) with reduction of the blood sugar to 310 mg. per 100 ml. She was started on Orinase with 2.5 grams as an initial dose. Within several hours she noted generalized pruritus. No eruption was seen. She tolerated 1 gram of Orinase daily with an antihistamine without further pruritus. Glycosuria cleared and there was a progressive decline in the level of the fasting blood sugar. Twelve days after the onset of therapy the blood sugar was 217 mg. per 100 ml. and Orinase was discontinued. No insulin was given in this observation period. Weight loss of 15 pounds was attributed to water loss due to therapy for decompensation.

Case II: Diabetes was first diagnosed in April 1956 in this 67 year old male. The initial blood sugar was 238 mg. per 100 ml. and the urine showed a 4 plus glycosuria and a 2 plus acetoneuria. He was placed on 20 units of Lente insulin daily and a diabetic diet of 1,800 calories. After one week on insulin therapy the

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*Orinase® was supplied through the courtesy of the Upjohn Company.

urine was negative for acetone but still showed a 2 plus glycosuria. Insulin was discontinued and the patient started on Orinase. Glycosuria cleared rapidly and two months later the fasting blood sugar was 98 mg. The leucocyte count decreased from 6,500 to 4,950 during this period. Orinase was continued and the urine has remained negative for sugar and acetone after four months but the blood sugar is 178 mg. and the leucocyte count is 7,600. His weight has been constant at 153 pounds during the observation period.

Case III: This patient is a 55 year old obese female who has been a known diabetic since 1953. She was fairly well controlled on 20 units of NPH insulin daily. Insulin was discontinued in April, 1956 and she was started on Orinase. Weight at onset of therapy with Orinase was 194 pounds and there has been a 5 pound weight loss over a period of two and one half months. The blood sugar decreased from 224 mg. to 149 mg. per 100 ml.

Case IV: This 53 year old female was first determined to be diabetic in 1950. She refused insulin at that time and did not return to the Metabolic Clinic until 1956 when she required dental care. This was delayed pending improvement of the diabetic status. Orinase was started on April 13, 1956. Within one month the blood sugar decreased from 244 to 148 mg. per 100 ml. and the glycosuria cleared. The initial leucocyte count of 9,100 dropped to 4,900 after one month of therapy. Orinase was discontinued on May 18, 1956. Within five weeks the blood rose to 248 and the leucocyte count to 5,800. Orinase was restarted on June 29, 1956 and three weeks later the blood sugar was 149 mg. per 100 ml. and the leucocyte count was 9,100. Her weight has remained constant at 130 pounds. (See Figure 1)

Case V: This 72 year old male was admitted to the hospital because of acute cardiac decompensation. He was not a known diabetic. The initial fasting blood sugar was 520 mg. per 100 ml. NPH insulin was given for four days and the blood sugar dropped to 270 mg. Orinase was started on April 20, 1956. The following day he had a severe febrile reaction due to an acute urosepsis. During the next five days the blood sugar rose to 335 mg. per 100 ml. and the 24 hr. glucose excretion increased. Because of the complicating infection and heart failure, it was necessary to discontinue Orinase after the fifth day and return to in-

sulin therapy. Good control was established within 3 weeks.

Case VI: This 42 year old female was diagnosed as diabetic in November, 1955. Insulin was never used. She was placed on a 1,800 calorie diet (CHO 187, P.67, F90). After improper control on diet, Orinase was started, when the blood sugar was 215 mg. In two months the blood sugar was 131 mg. and the leucocyte count 3,650. The initial count was 6,500 on starting Orinase. The sulfonylurea was stopped and one month later the blood sugar was 171 mg. per 100 ml. and the leucocyte count 5,500.

Case VII: This 43 year old obese female was a known diabetic since 1954. She had not taken insulin until March, 1956 when she was placed on 20 units of NPH insulin. Since taking Orinase blood sugars have varied from 150 to 170 mg. per 100 ml. with an initial reading of 174. She weighed 318 pounds in March, 1956 and 297 pounds in August, 1956.

Case VIII: Diabetes mellitus was diagnosed in January of 1956 in this 51 year old female. She was placed on a diabetic diet of 1,600 calories (CHO 170, P 80, F65) with no insulin. In April the fasting blood sugar was 318 mg. per 100 ml. Orinase was started on June 8, 1956. Within 10 days the blood sugar dropped to 139 from a level of 200 in June. Her weight has remained constant at 145 pounds.

Table I is a summary of the results of therapy in the eight patients studied.

Addendum.

All patients reported above have remained on Orinase, except Case V, to present date (June, 1957) with continuance of hypoglycemic effect. However, Case II was taken off of Orinase for one month when his WBC fell to 3,900. He was restarted when his WBC reached 9,000 and blood sugar was 248. He has remained under good control on one gram of Orinase daily since that time with the blood sugar June 10, 1957 at 160, WBC 10,000 weight 153.

DISCUSSION

The mode of action of the sulfonylureas has not yet been definitely established. Mirsky, et al.⁶ has suggested that the hypoglycemic action

TABLE I

Case Number	Blood Sugar Before Orinase	Blood Sugar After Orinase	24 Hr. Urine Glucose Before Orinase	24 Hr. Urine Glucose After Orinase	Days on Orinase
1	310	217	17.7 G	0	12
		98			60
2	230	178			120
3	224	149			84
4	244	148		0.9 G.	33
5	270	335	194.0	27.0	5
6	215	131	21.5	2.5	77
7	170	165	33.8	0.	83
8	221	139	3.2	0.6	31

of these drugs is due to a noncompetitive inhibition of insulinase and a consequent decrease in the destruction of endogenous insulin. Best⁷ has proposed several mechanisms of action, including the possibility that the rate of formation and liberation of insulin from the pancreas may be increased. Loubatieres⁸ has demonstrated that these hypoglycemic sulfonylamides liberate some pancreatic insulin. It has been suggested that the mode of action is chiefly hepatic¹³ inhibiting certain hepatic enzyme systems which act to transform nonglucose precursors to glucose. The final determination of these awaits solution.

Another question that requires clarification is the degree of toxicity of these substances. The dangers of prolonged usage have not yet been determined. The possibility of agranulocytosis must be suspected and sought for in all cases under therapy with these drugs. We have not attempted to use the sulfonylureas in the severe or juvenile diabetic and most investigators who have, report failure. In general the middle-aged diabetic (at onset of diabetes) seems best suited for Orinase therapy though there are a few reports indicating that there may be a beneficial response in some juvenile diabetics, enabling these patients to be maintained on a lower total insulin dosage, if they use Orinase along with insulin.¹²

We have not noted the immediate hypoglycemic response reported by some and have usually encountered a delay of several days for effect. When the drug was discontinued an immediate return of hyperglycemia was observed in all cases. There is no doubt that these drugs are hypoglycemic. Renold et al.⁹ suggest that selective interference with hepatic gluconeogenesis may contribute to the hypoglycemic effect of these drugs. There is the possibility of thyroid effect, the determination of antithyroid action of sulfonylureas being noted by Brown and Solomon.¹⁰

Fajans et al.¹¹ concludes that in addition to a hypoglycemic effect there is:

1. No significant change in glucose tolerance tests

2. Persistence of both adrenalin and glucagon induced hyperglycemia
3. No consistent change in sensitivity to exogenous insulin
4. No significant change in urinary excretion of 17-hydroxycorticosteroids or 17-ketosteroids
5. No direct effect on balance of nitrogen, sodium, potassium, or chloride
6. No effect on prednisolone induced loss of carbohydrate tolerance
7. No alteration in metabolic effects produced by prednisolone
8. No evidence of impairment of liver function.

We would like to urge all users of this medication to use care in selecting patients for administration, noting that there is no substitute for insulin in acidosis and in infections in the diabetic and for careful dietary management. It has been our observation that those who do not lose weight (if obese) do poorly or not as well as expected on Orinase.

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Hydranencephaly With Emphasis on a Simple Diagnostic Procedure

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H ydranencephaly is a relatively rare anomaly characterized by varying degrees of absence of the cerebral hemispheres. The intact skull and meninges are filled with cerebrospinal fluid. Although the infant's appearance and routine physical examination are entirely normal, this unusual anomaly can be easily diagnosed by any physician at birth if routine transillumination of the skull is carried out. The purpose of this report is to emphasize the value of this simple procedure thereby making possible earlier diagnosis in this ultimately fatal condition. Since the eventual outcome of hydranencephaly is hopeless, early diagnosis of this condition by the family physician can prevent considerable future uncertainty, expense, and concern for the parents.

Our patient was first seen in this clinic on September 8, 1956, at the age of five weeks with a history of having been excessively irritable for a period of two weeks. Family history was non-informing. There were two living female siblings in good health, ages 6 and 7. The mother's prenatal course had been uneventful,

and there was no history of her having had any infection or illness during the pregnancy. The infant was a full term, apparently normal, male infant at birth. Birth weight was 7 pounds and 14½ ounces. The onset of the present illness dated from August 21st when he was noted to be very cross and irritable and was thought by the mother to have colic. The following day he had an elevated temperature and a rhinorrhea. He was treated by his local doctor for an upper respiratory infection. On the 24th of August he developed a bloody diarrhea. Cremosuxidine® was prescribed, and the diarrhea improved rapidly. He was referred to this clinic on September 8th due to continued irritability and fever.

Physical examination at admission revealed a well-developed, well-nourished infant of five weeks who was quite irritable. The weight was 9 pounds and 15 ounces, length 22 inches, O. F. circumference of the head 15 inches, and chest circumference 15 inches. He had mild cranio-tabes. His throat was moderately injected and both eardrums were dull and thick. The lungs, heart, skin, genitals, and extremities were normal. Neurological examination was considered negative. He was given a formula contain-

From the Department of Pediatrics, Carle Hospital Clinic, Urbana, Illinois.

ing Casec® because of his loose stools and put on Chloromycetin Palmitate®, drams $\frac{3}{4}$, four times daily. Since he was quite irritable, he was given elixir of Nembu — donna®, drams 1 every six hours, if needed for rest.

Laboratory examination at this time showed a urine which had an acid reaction, albumin and sugar negative, and negative microscopic examination. The blood hemoglobin was 8.2 grams, erythrocytes 2,560,000, and leucocytes 9,100 with 16 per cent neutrophils, 79 percent lymphocytes, 3 per cent monocytes, 1 per cent eosinophiles, and 1 per cent basophiles. The platelets were adequate and the blood serology was negative.

As the infant continued to be unusually irritable, a lumbar puncture was done on September 10th. Cerebrospinal fluid pressure was normal. The spinal fluid was clear, and there was 1 cell per cu. mm. Sugar was 48 mg. per cent, protein was 123 mg. per cent, and the gold curve was 0000000000. Spinal fluid serology was negative. Spinal fluid culture was negative.

The infant was discharged from the hospital on September 15th. At that time he was gaining weight and his general condition was good. However, he was still a very fretful infant. He was followed by his local doctor until November 20th. At that time he was checked in our outpatient department. There was a history of his having had three episodes which were apparently mild convulsive seizures during the preceding six weeks. These lasted only a few seconds and were accompanied by rolling of the eyes and opisthotonus. He had continued to be quite fretful and had frequent temperature elevations to 101° F., rectally.

Physical examination on November 20, 1956 showed the weight to be 13 pounds and 14 ounces, a gain of 3 pounds and 15 ounces in nine weeks. The infant was now fifteen weeks old. O.F. circumference of the head was $16\frac{3}{4}$ inches. Nystagmoid jerks of the eyes were noted, and the optic discs were very pale and atrophic. It was the opinion of the ophthalmologist that he had an optic atrophy. The infant was generally hypertonic. X-ray examination of the skull was negative. Subdural taps were done bilaterally on December 11th and clear fluid was obtained from both sides. The subdural fluid on the left side had a total protein of 17 mg.

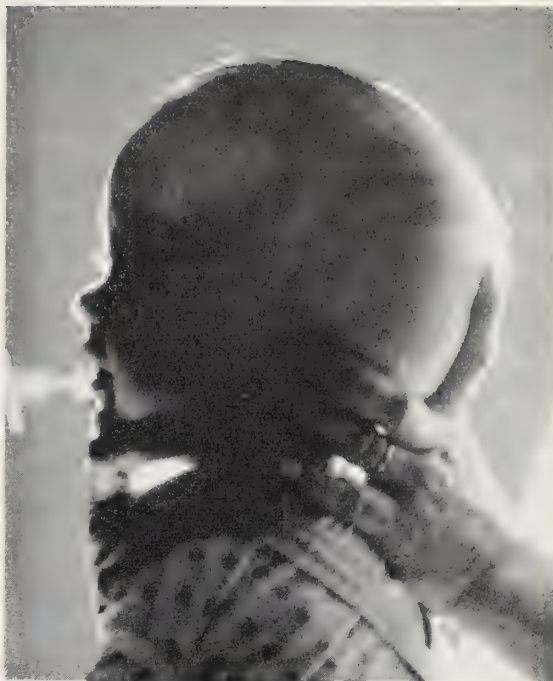


Figure 1 Photograph of the head transilluminated. Note the shadows of the blood vessels of the scalp.

per cent, and there was 1 lymphocyte per cu. mm. Sugar was 64 mg. per cent, gold curve was 0000000000, and Kahn was negative. Subdural fluid on the right side had a total protein of 23 mg. per cent, sugar 46 mg. per cent, and gold curve reading 0000000000. Subdural fluid culture was negative on both sides. At that time the infant's head was transilluminated with a flashlight for the first time. The easily discernible reddish glow through the skull made it immediately apparent that the right hemisphere was completely replaced with fluid, and that there was little cortical tissue present on the left side. (Figure 1).

On December 12th 20 cc. of subdural fluid was removed and replaced by air. X-rays following this procedure substantiated the findings of hydranencephaly. This procedure caused some bleeding to occur and transillumination could not be demonstrated again for a period of several weeks. When the subdural fluid had cleared, transillumination again demonstrated the lack of cortical tissue.

An electroencephalogram at the age of eighteen weeks was essentially normal as compared with Gibb's Atlas. At age six and one-half months the electroencephalogram revealed low

potential, and at ten months very little electric activity was found. (Figure 2)

At the present time the patient is ten months old and weighs 15 pounds and 4 ounces. The O.F. circumference of the head is 19½ inches, and the chest circumference is 17 inches. He has frequent generalized convulsions, continues to be very fretful, and requires a great deal of nursing care. Transillumination now reveals no cortical tissue present in either hemisphere.

The etiology of hydranencephaly is unknown though several theories have been considered. Cohn and Neumann¹ have stated that a vascular occlusion occurring very early in the development of the brain can cause maldevelopment or even agenesis in that portion of the brain that is dependent on the vessel or group of vessels. Yakovlev and Wadsworth² have considered the condition to be true cerebral agenesis due to a failure at the germ plasm level.

Infants with hydranencephaly usually appear perfectly normal at birth. They may have adequate weight gains and appear to develop normally for several weeks or months. Gradual enlargement of the head may be the first sign of any abnormality observed by the mother or physician. Hamby, Krauss and Beswick³ have reported on a series of seven cases in which head enlargement was first noted between two weeks and three months of age. Accurate diagnosis need not wait until enlargement of the head has been noted however. Since the lower centers of the brain are responsible for most of the activities of the neonatal period, mental retardation may not be apparent until the infant is several months old. Hyperirritability, tremors, twitchings of the extremities, or convulsions may be noted during the first few weeks of life. Nystagmus or strabismus may be observed, and the infant will not usually follow objects with the eyes. Bilateral optic atrophy was found in the above case. The electroencephalogram will usually reveal a complete absence of electric activity in all leads. However, electric activity may be present as in the above case during the first few months of life, and therefore cannot be relied on to rule out the diagnosis of hydranencephaly. It is of interest that the electroencephalograms obtained three times over a period of six months and with the electrodes in the same positions revealed progressively decreasing electric activity. This finding would seem to

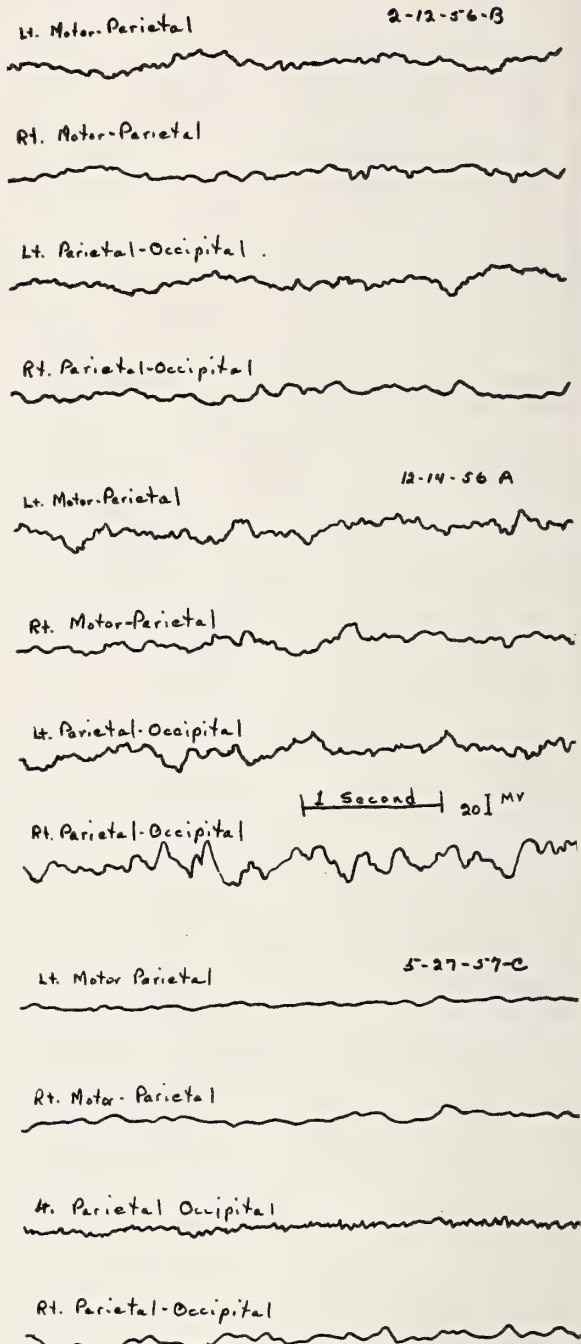


Figure 2 Electroencephalograms obtained at age four and one-half months, six and one-half months and ten months. The first electroencephalogram is essentially normal. The following two tracings reveal progressively decreasing electric potential.

be correlated with the observation that no cortical tissue could be visualized by transillumination at the time of the last electroencephalogram. Routine roentgenograms of the skull without the introduction of air give no indication of the

severe cerebral defect. In the typical case ventriculograms are not necessary for diagnosis, but if carried out, will reveal the cranium to be filled with air. The ventricles will not be visualized, but varying amounts of supratentorial tissue may be seen depending on the amount of cerebral tissue present.

Transillumination of the skull remains the simplest and most reliable diagnostic procedure. Transillumination can be carried out by the examining physician by holding a flashlight or a very strong penlight against the skull in the same manner that a hydrocele might be observed. This is best done in a darkened room. The striking reddish glow of the cranium is revealed in sharp contrast to the dark underdeveloped cerebral tissue and the blood vessels of the scalp. It is known that the skulls of infants with hydrocephalus may transilluminate in a similar manner; however, this will be found only when the hydrocephalus is advanced and the cerebral cortex extremely thin. This should not lead to confusion when the head of an infant is normal in size or only moderately enlarged⁴. Olive and DuShane⁵ and others have reported that the glow of light may pass through the infant's pupils when the source of light is directed against the occiput. The same authors have emphasized that transillumination removes hydranencephaly from the classification of medical curiosities to be diagnosed at autopsy by permitting early diagnosis during life. As was demonstrated in the above case, transillumination may be im-

possible if the cerebrospinal fluid is made opaque by blood following subdural taps or other operative procedures.

The routine use of transillumination of the skull by the physician during the examination of newborn infants only takes a few seconds of time. It is our feeling that this diagnostic test should never be omitted during the examination of any infant who has shown evidence of central nervous system disease. By utilizing this test infants with hydranencephaly can be discovered early in life and the parents immediately advised of the grave prognosis for their infant.

SUMMARY

The routine use of transillumination of the skull by all physicians during the examination of newborn infants and infants with evidence of central nervous system malfunction is a simple procedure which will reveal hydranencephaly if it is present. By making an early diagnosis, a correct prognosis can be ascertained and needless future diagnostic tests and uncertainties can be avoided. The electroencephalogram cannot be relied upon to rule out this diagnosis in the first few weeks or months of life.

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Asian flu protection

Asian vaccine was estimated to cause a three-fold reduction — that is, 66 per cent protection — in the number of influenza cases as compared with the numbers in the control group occurring nine days after inoculation and thereafter. Within the first eight days after inoculation no dif-

ferences were found. The polyvalent influenza A vaccine behaved just like the control influenza B vaccine, so it can be concluded that the stimulus of the up-to-date Asian antigen was necessary for protection. Recent published accounts of trials of Asian vaccines in the U.S.A. have given figures of effectiveness in the range of 40-67 per cent. *Editorial. Brit. M.J. Feb. 22, 1958.*

Tuberculosis of External Eye

EARL H. MERZ, M.D., AND JOHN J. WALSH, M.D., CHICAGO

Tuberculosis of the external eye was at one time fairly common but is now so unusual in the United States it is not readily thought of and may go undiagnosed. It is the purpose of this paper to direct attention to these lesions.

The first observation of a tuberculous infection of the conjunctiva was that of Arlt in 1864.¹ He described the spread of a case of lupus from the cheek to the conjunctival sac. In 1873, Koester² demonstrated that actual tuberculomata can occur in the external eye. Sattler³ reported an ocular tuberculosis case in 1874. Most of these cases occurred outside the United States. Recently Donegan⁴ and Sykowski⁵ reported primary tubercular lesions of the conjunctiva, which are most rare.

Tuberculosis of the external eye may be divided into primary and secondary infections. The primary type occurs exogenously through invasion by bacilli carried in the air on particles of dust or in droplets from the nose or mouth of infected persons⁶. Bacilli can be carried for a considerable distance. No other tuberculous infection is found in the patient. The secondary type can come from direct extension from the skin of nose or face¹, endogenously by metastases through blood or lymph channels², and exogenously from fingers, handkerchiefs and tissues infected with pulmonary secretions³.

Some authors such as Lafon⁷ and LaGrange⁸, believe all cases are endogenous and secondary, while others such as Fuchs⁹ and Igersheimer¹⁰, believe most are exogenous and primary. Probably both types exist (Reis¹¹).

The clinical types as listed by Duke Elder¹² are:

1. Ulcerative, in which one or more small miliary ulcers may coalesce. This usually occurs on the palpebral but may occur on the bulbar conjunctiva. Tubercle bacilli can be seen in scrapings from ulcer base.
2. Nodular, characterized by yellow or gray

subconjunctival nodules, which may increase in size, become surrounded by follicles, and develop into cauliflower growths with central necrosis.

3. Hypertrophic papillary, characterized by florid, flattened outgrowths of granulation tissue.
4. Polypoid, which is a pedunculated tumor simulating a fibroma. Giant cells and tubercle bacilli are seen.
5. Conjunctival tuberculoma, characterized by a hard, solid, yellow, or red nodular tumor in the subconjunctival tissue.

Tuberculosis of the eye is seen most frequently in young adults between the ages of 20 and 40, although it has been reported in all ages.

P.A., a 62 year old white male, was seen in the office with a large, friable, ragged ulcer, about 2 cm. in diameter, on the temporal side of



Figure 1

the bulbar conjunctiva of the right eye. (Figure 1). His vision was 20/20 in each eye, there was no pain or interference with movement of the eye. Cornea and lids were normal. Complete eye examination revealed no intraocular pathology in either eye. Tension was normal in each eye.

He gave a history of active pulmonary tuberculosis with intensive treatment a year previously. The ulcer had developed in the right

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eye about three months previously and had been treated by an ophthalmologist at least once a week for two and one-half months, with no improvement. Exact treatment was not known. No diagnosis was made in the office but hospitalization was advised for biopsy and treatment, to which the patient consented.

In the hospital, physical examination revealed a positive finding of pathology in the right upper chest. The blood pressure was 145/80. Blood count revealed 4,250,000 red cells with no abnormal cells noted, and hemoglobin 12.8 gm., which is normal. Urinalysis and blood chemistry were normal. X-ray of the chest showed tuberculous infiltration of right upper lobe.

The patient was taken to the operating room and a biopsy, smear, and culture were obtained. Following this and before the laboratory report was obtained, the patient suffered a severe complication from his pulmonary tuberculosis and was moved to the Municipal Tuberculosis Sanitarium in Chicago where he subsequently died.

The laboratory reported the presence of great numbers of acid-fast bacilli from smear and excised tissue. The typical tuberculous tissue reaction and giant cells were noted in the biopsy. Many epithelioid cells were noted. It was recommended that material be obtained for animal inoculation, but the patient was not available for this procedure.

Diagnosis of ulcerative tuberculosis of the conjunctiva secondary to pulmonary tuberculosis was tentative, made on the clinical appearance of the ulcer, the inability to effect a cure, the history of active tuberculosis of the lung, the presence of acid-fast bacilli in the smear, and the biopsy report.

Treatment which was started following biopsy consisted of streptomycin locally along with systemic treatment with streptomycin, isoniazid, and para-aminobenzoic acid. The final progress note about 24 days after treatment was started

and before the patient died showed the conjunctival ulcer almost completely healed.

DISCUSSION

Many types of treatment have been advocated in the past, such as ultraviolet light, X-ray, iodoform, tuberculin desensitization, and complete excision with cauterization of the wound. The most recent work of Woods¹³ covers the subject well, when he states that ocular lesions do not differ basically from tuberculous lesions elsewhere in the body. The principle of treatment is in preserving and promoting tissue resistance by improving general hygienic conditions and by direct chemotherapeutic attack on the bacilli. His treatment consisted of streptomycin and dihydrostreptomycin, 1 gram every two days; para-aminobenzoic acid, 2 grams daily; and isoniazid, 300 mg. daily, reduced to 150 mg. after five days. Continue the treatment for at least six months.

Kratka¹⁴ showed experimentally that streptomycin, para-aminobenzoic acid, an isoniazid acid, and isoniazid used together in the treatment of tuberculosis was superior to any of the three used alone as a definite synergism existed.

SUMMARY

A case is presented of ulcerative tuberculosis of the conjunctiva secondary to active pulmonary tuberculosis, treated successfully with anti-tuberculous drugs locally and systemically.

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Vaccination against respiratory diseases

Upper respiratory tract infections continue to be a major problem despite the remarkable advances in the treatment of acute respiratory diseases due to bacterial agents. Although generally considered minor illnesses they account for approximately 50 per cent of all cases of disabling illness and are the principal cause of absenteeism from work, school, and military training.

The great majority (95 per cent) of respiratory diseases are caused by viruses, many of which have not yet been identified. Prevention must await the isolation of these agents and the development of suitable vaccines. Great progress has been made during the past few years in isolating viruses from the throats of patients ill with respiratory disease through the use of tissue culture methods. Some of these agents have not yet been associated with clinical illnesses.

An exception is the adenovirus group, which has been established as a cause of acute febrile respiratory illnesses. Types 1, 2, 3, and 5 cause infections in infants and children. Types 3, 4, and 7 are responsible for infections in adults; they cause from 20 to 70 per cent of acute respiratory infections in certain military groups. A vaccine containing adenovirus types 3, 4, and 7 has been highly effective in preventing infections due to these types in the military inductee,

but its value in civilian groups must await further study.

Polyvalent influenza virus A and B vaccines have been available for several years and are of value in preventing influenza, provided the strains in the vaccines are closely related antigenically to those causing the disease. Influenza virus vaccine cannot be expected to protect against clinically similar illnesses caused by other viruses.

At present, no other viral vaccines are available for the prevention of respiratory tract infections. Currently a number of newly isolated virus agents from infants and young adults ill with respiratory disease are being studied by a number of investigators. Protection by vaccines must await the results of these studies.

"Cold vaccines" composed of bacterial pathogens and common flora of the nose and throat are of no value in the prevention of virus infections of the respiratory tract.

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It is a sad thing to begin life with low conceptions of it. It may not be possible for a young man to measure life; but it is possible to say, I am resolved to put life to its noblest and best use. — T. T. Munger

The annual check-up

The adage, "Do as I say, not as I do," backfires when it comes to annual examinations for physicians. Many of us have yet to be sold on the innovation. We recognize the value of the plan but find dozens of reasons for procrastination.

Physicians as a group hesitate to take up the time of a colleague for an examination. Some fear they will be labeled neurotic. Others will not admit to fatigue, worry, or a sense of insecurity. They are reluctant to confess their shortcomings and inability to follow the rules of health. Still others may not want to transmit information that might cause embarrassment or put them to a disadvantage.

The alternative to voluntary check-ups by a colleague is to follow the example set by large corporations for their executives. They hire an outsider to do the examination. The medical department makes all the arrangements and the results are confidential. The local medical society or the hospital could act as the agent for the private practitioner. It could hire an outside physician and do the usual spadework required for a yearly examination. An annual pilgrimage to a large clinic in another city is a third suggestion; this may allow for a combination of business and pleasure.

Let us consider ourselves valuable property. Our patients need us and our family even more so. Confidence is lost in the physician who does not practice what he preaches. Our responsibilities are great; we must do everything in our power to be able to meet them adequately. Make that appointment now.



Annual meeting to cover scientific, economic topics

The 118th annual meeting of the Illinois State Medical Society in the Sherman Hotel, Chicago, May 20-23, will provide:

- (1) An outstanding scientific program covering a wide variety of medical subjects;
- (2) House of Delegates meetings that will consider important matters of interest to all physicians;
- (3) An Annual Dinner that will be a bright social event;
- (4) A Public Relations Dinner that will pre-

sent an opportunity to meet the new general manager of the AMA, and

- (5) Outstanding scientific and technical exhibits.

Eighteen papers will be delivered before the General Assembly by invited guests from all parts of the country. A wide variety of scientific subjects will be covered.

Dr. Alexander Marble, assistant clinical professor of medicine, Harvard Medical School, Boston, will deliver the oration on medicine; and Dr. Keith S. Grimson, professor of surgery, Duke University School of Medicine, Durham, N.C., the oration on surgery.

There also will be sectional meetings on allergy, anesthesiology, cardiovascular diseases, dermatology, EENT, medicine, obstetrics and gynecology, pathology, pediatrics, preventive medicine and public health, radiology, and surgery.

HOUSE OF DELEGATES

The sessions of the House of Delegates will be well attended and the elected representatives of the county societies will consider problems of great importance to the profession. Individual members also will have an opportunity to voice their opinions before the reference committees charged with bringing recommendations before the House for acceptance, amendment, or rejection.

Elections will take place at the closing session on Thursday. At that time, Dr. Raleigh C. Oldfield, Oak Park, will be installed as president to succeed Dr. Lester S. Reavley, Sterling.

ANNUAL DINNER

The Annual Dinner will be held on the evening of the second day. It will pay honor to the retiring president and the past presidents of the Society. The guest speaker will be the Rev. Carl S. Winters, D.D., minister of the First Baptist Church, Oak Park, who has attained a national reputation both as an inspirational speaker and as a humorist.

PUBLIC RELATIONS DINNER

The annual Public Relations Dinner will be held on the evening of the first day. The speaker will be Dr. F. J. L. Blasingame, the new general manager of the American Medical Association.

Dr. Blasingame, who gave up participation in a large clinic in Wharton, Tex., to take over as executive head of the AMA, will make his appearance before the society for the first time.

The AMA is undergoing many changes at its headquarters in Chicago, and he may tell how they hope to improve relationships with and services to state and county medical societies.

EXHIBITS

There will be an outstanding array of scientific exhibits covering many fields of medicine. The committee in charge has had a large list of applications to select from, so that attending physicians will be assured the best possible displays.

Pharmaceutical firms, medical equipment houses, and other concerns supplying physicians will have their latest offerings on exhibit. Here is an opportunity for the busy physician to look over a wide variety of material with a minimum of effort.

Physicians who attend this annual meeting will enrich their capacities for service to their patients which commends them to the leaders of their communities and the confidence of their fellows in medicine.

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Editorials from other journals—

Steroids and pancreatitis

Anyone who studies the literature on steroid compounds must soon become aware that the beneficial effects of therapy may at first sight directly contradict experimental evidence from the laboratory. A recent example of this apparent paradox is the action of steroids on the pancreas. The impression among clinicians is that cortisone and related drugs may be of value in the treatment of acute pancreatitis. The mortality rate in this disease has been reported to be as high as 30 per cent, and death usually is due to circulatory failure. It is here that corticoids, and particularly intravenous hydrocortisone, might be expected to be beneficial, and indeed they have been claimed to be lifesaving. On the other hand, the disturbing fact recently has come to light that cortisone can produce histological changes in the pancreas similar to those of acute pancreatitis. Two groups of workers have noted, in animals receiving cortisone, dilatation and proliferation of intrapancreatic ductules, together with accumulation of inspissated material in the lumina and patchy areas

of fat necrosis. F. A. Carone and A. A. Liebow have studied necropsy material from a consecutive series of 54 patients who were treated with steroids, and report ductular proliferation in over half and acute pancreatitis and fat necrosis, sometimes severe, in more than a quarter. In spite of the histological evidence, there were no definite clinical indications that the patients had suffered from attacks of pancreatitis. Nevertheless H. S. Baar and O. H. Wolff have recently described two children in whom acute pancreatitis was almost certainly associated with steroid therapy.

The mechanism of this serious disease remains obscure. Such factors as malnutrition, alcoholism, vitamin deficiency, and hyperlipemia are probably important in only a minority of cases. Pancreatitis can arise as a complication of any of the acute infectious fevers, particularly mumps. The widespread nature of the necrosis suggests that in some patients interference with pancreatic blood supply may be the precipitating factor. On the other hand, the association, both clinically and experimentally, with infection and obstruction of the biliary and pancreatic ducts is well established. The changes produced in cortisone treated animals are similar to those found in animals in which the pancreatic duct is ligated, though milder and more patchy. It is possible that steroids produce an intermittent obstruction, due to a change in viscosity of the pancreatic secretions, though infection as a causative factor has not been certainly excluded.

The similarity between the lesions produced by cortisone and those of acute pancreatitis suggests a fruitful line of approach to the clinical problem. It is worth emphasizing, however, that the histological effects in animals are the result of prolonged treatment with high doses of cortisone, and that acute pancreatitis is apparently an extremely rare complication of steroid therapy in man. There is at present no reason for withholding corticoids in patients with acute pancreatitis, particularly if there is severe circulatory insufficiency, provided treatment for pain and shock, electrolyte imbalance, and infection has been started. *Brit. M. J.* Feb. 8, 1958.

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Sincerity is impossible unless it pervades the whole being, and the pretense of it saps the very foundation of character. — James Russell Lowell

Illinois surgeon promoted to rank of major general

The Senate has confirmed the promotion of Brig. Gen. Wilford F. Hall to the permanent rank of major general, marking another advancement in a distinguished army career which began immediately after his graduation from medical school in 1928. This is the highest authorized rank for a medical officer.

Gen. Hall is a son of Dr. Andy Hall of Mt. Vernon, Ill., who was honored by the American Medical Association in 1950 as the "Outstanding General Practitioner of the Year." Two brothers also are physicians — Dr. Andy Jr., St. Louis, and Dr. Marshall W., Mt. Vernon. Gen. Hall is a graduate of Mt. Vernon High School and Washington University School of Medicine. He then entered the service and his tour of duty has included assignments as chief surgeon to the 9th Air Force in Europe, deputy surgeon for all U.S. Air Forces in Europe, and command surgeon of the Military Air Transport Service. In the latter position he was responsible for the health of Air Material Command personnel in the United States and from the Far East to the borders of the iron curtain in Germany.

Gen. Hall is a member of the Illinois State Medical Society, American Medical Association, Association of Military Surgeons, and Aero Medical Association, and is a founder of the American Board of Aviation Medicine. He has been awarded the Legion of Merit with one oak leaf cluster. He is married to the former Marion Hutchinson. They have two children, Ronald, 13, and Carol, 9.



Major Gen. Wilford F. Hall

doctor-hospital relationships. Subject matter that appeals only to the physician — hunting and fishing, a condensed news column quickie, and a pictorial or two — is not suitable to the feminine and juvenile patient.

In smaller communities, the public librarian often is helpful in selecting attractive up-to-date literature. If ordered in a package deal, the budget will allow for greater variety. The reading material should include periodicals for men and women in different walks of life, plus a Disney or outer space cartoons for the kids. A bit of humor will brighten the period.

Magazines for the office

The magazine selection in the physician's reception room has been the butt of amateur and professional jokesters. In some rooms, the only reading material is a variety of thumb-marked, ragged-edged, ancient periodicals ready for the archives. Professional medical journals, throw-aways, and pharmaceutical journals are for the physician to read and not the patient. Lansing Chapman, publisher of Medical Economics, made the statement that his journal does not belong in the reception room. Patients need not be let in on the ground floor by reading articles on malpractice, the income of physicians, and adverse

Intensive care unit

The Recovery Room for surgical patients was a step forward in patient care and in hospital efficiency. Now comes the Intensive Care Unit recommended by the Massachusetts Memorial Hospitals. According to an editorial in the Boston Medical Quarterly, the proposed unit would meet the needs of critically ill patients. It will consist of approximately 18 beds and is to be located near the operating rooms and elevators. It should be staffed by experienced trained nurses around the clock and by medical and surgical house officers on the same basis. Many lives can be saved by a team experienced in the man-

agement of the critically ill, when the proper equipment is available immediately. The majority of hospitals have these teams but they are so dispersed, valuable time is lost in bringing them together when an emergency occurs.

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Rules for authors

Manuscripts should be submitted in duplicate to the Illinois Medical Journal, an original copy and one carbon, and typed with double spacing. Maximum length of an article should not exceed 4,500 words; briefer if possible.

Footnotes and references should conform to the style of the Quarterly Cumulative Index Medicus published by the American Medical Association. This requires in the order given: Name of author; title of article; name of periodical; with volume, page, month — day of month if weekly — and year. The Illinois Medical Journal does not assume responsibility for

the accuracy of references used with scientific articles.

The first page should list the title, the name of the author (or authors), degrees, and any institutional or other credits. The title of the article should be as short as possible. Pages should be numbered consecutively. Tables are to be typed, numbered, and accompanied by a brief descriptive title. Make drawings and charts in black ink. Glossy photographs may be submitted. Number illustrations consecutively, indicating them in the text. Number, indicate the top, and place the author's name to the back of each illustration. Number legends and type them following the main body of the manuscript.

Order blanks for reprints will be sent to the author at the time of publication.

Address manuscripts to Harold M. Camp, M.D., Editor of the Illinois Medical Journal, 224 S. Main Street, Monmouth, Illinois.

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Small bowel tumors

The records of 32 patients with primary symptomatic small bowel tumors were studied in an attempt to define the clinical pattern produced by these tumors. Most patients had a pattern either of obstruction with attacks of crampy abdominal pain, or of blood loss characterized by intermittent severe bleeding in benign tumors, or anemia and occult blood in the stools in the malignant tumors. Roentgen studies showed tumor in 18 of 29 cases studied with contrast media, and led to the diagnosis in two other cases by disclosing evidence of obstruction. Three of the nine tumors not seen by the radiologist were located primarily extraluminally and probably could not have been seen. Another three

would have been visible if small bowel roentgen studies had been requested. The final three were overlooked by the radiologist. Twenty-nine patients had an operative procedure, and metastases (local or distant) were found in 15. Three patients who had adenocarcinoma of the jejunum survived for more than five years, while seven of eight patients who had sarcoma either are living or survived more than five years. It is apparent that early diagnosis of small bowel tumors requires a clinician alert to the clinical patterns, and a radiologist aware of the roentgen abnormalities that may be produced by these tumors. *James F. Patterson, M.D.; Allan D. Callow, M.D.; and Alice Ettinger, M.D. The Clinical Patterns of Small Bowel Tumors: A Study of 32 Cases. Ann. Int. Med. Jan. 1958.*

PROGRAM
for the
One Hundred Eighteenth
ANNUAL MEETING
of the
ILLINOIS STATE MEDICAL SOCIETY



May 20, 21, 22, 23, 1958

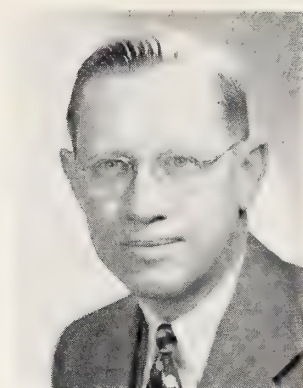
Hotel Sherman

Chicago

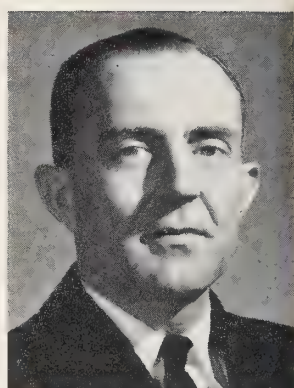
Annual Meeting Speakers



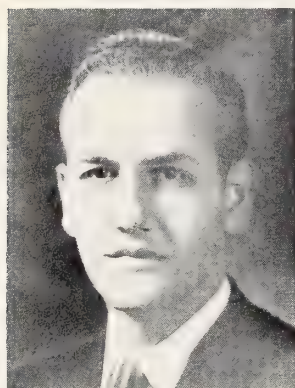
HARRY BAKWIN, M.D.
New York



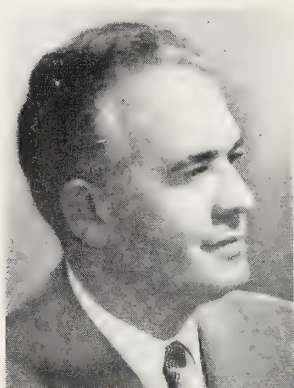
NELSON W. BARKER, M.D.
Rochester, Minn.



CAPT. NORMAN L. BARR, M.C.
Washington



JOSEPH R. CHRISTIAN, M.D.
Chicago



ANTHONY C. CIPPOLLARO, M.D.
New York



F. BRUCE FRALICK, M.D.
Ann Arbor



JEROME GLASER, M.D.
Rochester, N.Y.



KEITH S. GRIMSON, M.D.
Durham, N.C.



PAUL H. HOLINGER, M.D.
Chicago



OSCAR B. HUNTER JR., M.D.
Washington

Annual Meeting Speakers



KENNETH C. JOHNSTON, M.D.
Chicago



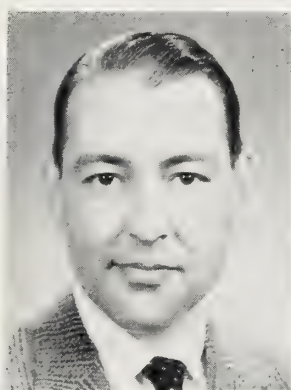
ORMAND C. JULIAN, M.D.
Chicago



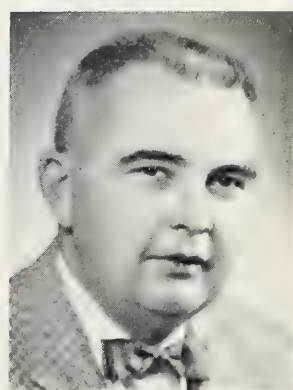
M. DIGBY LEIGH, M.D.
Los Angeles



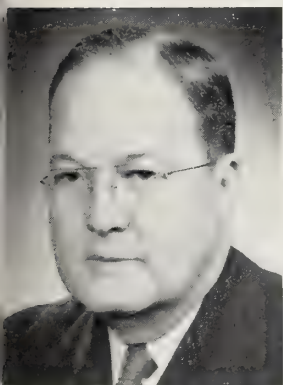
ALEXANDER MARBLE, M.D.
Boston



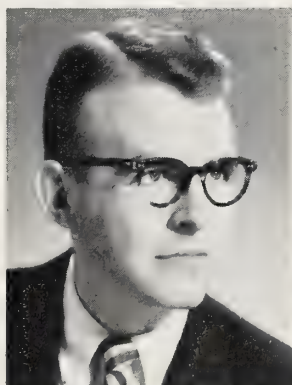
WILLIAM B. PARSONS, M.D.
Madison, Wis.



EVERETT L. PIRKEY, M.D.
Louisville



LYDE L. RANDALL, M.D.
Buffalo



E. CLINTON TEXTOR, M.D.
Chicago



JAMES D. WEAVER, M.D.
Erie, Pa.



REV. CARL S. WINTERS, D.D.
Oak Park

PROGRAM SUMMARY

TUESDAY, MAY 20

- 9:00 House of Delegates, Louis XVI Room
- 9:00 Obstetrics & Gynecology, Crystal Room
- 9:00 Anesthesiology, Gold Room No. 114
- 9:00 Cardiovascular Disease, Old Chicago Room No. 101
- 9:00 Eye, Ear, Nose & Throat, Ruby Room No. 113
- 12:00 Luncheon — Fifty Year Club, Assembly Room
- 12:00 Luncheon — Anesthesiologists, Room 107
- 1:30 General Assembly, The Ballroom
- 3:30 Radiology, Crystal Room
- 6:30 Public Relations Dinner, George Bernard Shaw Room

WEDNESDAY, MAY 21

- 9:00 Pediatrics, Louis XVI Room
- 9:00 Surgery, Crystal Room
- 9:00 Physicians' Association, Gold Room No. 114
- 9:00 Eye, Ear, Nose & Throat, Ruby Room No. 113
- 10:00 REFERENCE COMMITTEES: (8)
- 12:00 Pediatric Luncheon, Louis XVI Room
- 12:00 Academy of General Practice, Assembly Room

- 1:30 General Assembly, The Ballroom
- 7:00 Annual Dinner, The Ballroom

THURSDAY, MAY 22

- 8:00 Woman Physicians' Breakfast, Orchid Room No. 106
- 9:00 House of Delegates, Louis XVI Room
- 9:00 Ill. Chapter, Am. College of Chest Physicians, Crystal Room
- 9:00 Preventive Medicine & Public Health, Assembly Room
- 9:00 Dermatology, Old Chicago Room No. 101
- 9:00 Medicine, Gold Room No. 114
- 9:00 Allergy, Jade Room No. 103
- 12:00 Preventive Medicine & Public Health Luncheon, Assembly Room
- 12:00 Dermatology, Old Chicago Room No. 101
- 12:00 Chest Physicians, Orchid Room No. 106
- 12:00 Phi Chi Luncheon, Life Room No. 108
- 1:30 General Assembly, Ballroom
- 6:00 Loyola Alumni Dinner, Crystal Room
- 8:30 House of Delegates, Louis XVI Room

FRIDAY, MAY 23

- 9:00 Pathology, Louis XVI Room
- 12:00 Luncheon, Crystal Room
- 1:30 Association of Blood Banks, Louis XVI Room

House of Delegates

(1) Tuesday, May 20

9:00 a.m. The first meeting of the House of Delegates will be called to order by the president, Lester S. Reavley, for:

The reports of officers, councilors, committees, etc., and supplementary reports where indicated.

The introduction of resolutions, and the transaction of any other business which may come before the House.

THE COMMITTEE ON CREDENTIALS will meet at 8:00 a.m. Tuesday morning, May 20, in the entrance way to the Louis XVI Room. Delegates desiring to be certified as the official representatives of their county medical societies must present their CREDENTIAL CARD to this committee.

(2) Thursday, May 22

9:00 a.m. The second meeting of the House of Delegates will be called to order by

the president to hear those reports of Reference Committees ready to be presented.

(3) Thursday, May 22

8:30 p.m. The third (and last) meeting of the House of Delegates will be called to order by the president to hear the remaining reports of Reference Committees:

For the election of officers, councilors, committee members, delegates and alternate delegates to the American Medical Association, and

For the transaction of any other business to come before the House.

At the close of this last meeting, Raleigh C. Oldfield will be installed as the new president of the Illinois State Medical Society, and will receive the official gavel from the retiring president, Lester S. Reavley.

Programs for Tuesday, May 20, 1958

SECTION ON OBSTETRICS AND GYNECOLOGY

Chairman Vincent C. Freda, Chicago
Secretary Ralph N. Redmond, Sterling

Tuesday Morning, May 20, 1958

Crystal Room

9:00 PANEL — "BLEEDING WITH PREGNANCY"

MODERATOR: — Newton DuPuy, Quincy

Bleeding, First Half of Pregnancy, E. Harold Ennis, Springfield

Bleeding, Second Half of Pregnancy, Armand J. Mauzey, Elmhurst

Postpartum Bleeding, James H. McClure, Chicago

10:00 "THE TREATMENT OF THE BLADDER, Postoperatively, Following Gynecological Surgery"

Thomas R. Wilson, Urbana

10:20 "ENDOCRINOLOGY OF PUBERTY, the Normal and Variations"

Aaron E. Kanter, Chicago

10:40 "OVARIAN TUMORS"

Mark C. Wheelock, Chicago

11:00 Election of 1959 section officers and business meeting

ADJOURNMENT TO VIEW EXHIBITS

SECTION ON ANESTHESIOLOGY

Chairman Herman J. Nebel, East St. Louis
Secretary Arthur T. Shima, Oak Park

Tuesday Morning, May 20, 1958

Gold Room No. 114

9:10 "EXPERIENCE AND ROUTINE USE OF ELECTRONIC CARDIAC MONITORS"

Myron J. Levin, Veterans Administration, Hines Clinical Assistant Professor of Anesthesia, University of Illinois College of Medicine

9:30 "HEART LUNG MACHINE"

Max S. Sadove, Chicago, Professor of Surgery (Anesthesia) University of Illinois College of Medicine

9:50 "CO-ANALYZER AS A CARDIAC AND RESPIRATORY MONITOR"

M. Digby Leigh, Los Angeles, California, Chief of Anesthesiology, Children's Hospital. Assistant Professor of Surgery (Anesthesiology), University of Southern California School of Medicine

10:10 Business meeting and election of Section Officers for 1959.

10:20 INTERMISSION TO VIEW EXHIBITS

11:00 PANEL SYMPOSIUM WITH SECTION ON CARDIOVASCULAR DISEASE

Old Chicago Room, No. 101

See Section on Cardiovascular Disease for program

12:00 LUNCHEON — Room No. 107

SECTION ON CARDIOVASCULAR DISEASE

Chairman George C. Sutton, Evanston
Secretary .. Edward W. Cannady, East St. Louis

Tuesday Morning, May 20, 1958

Old Chicago Room No. 101

Panel symposium in co-operation with the Section on Anesthesiology

9:00 FILM: "Resuscitation for Cardiac Arrest"

9:20 "SHOCK OF CARDIAC ORIGIN"

Robert P. Gilbert, Assistant Professor of Medicine, Northwestern University Medical School, Chicago

9:35 "TOXIC EFFECTS OF DRUG THERAPY IN CARDIOVASCULAR DISEASE"

Arnold S. Moe, East St. Louis, President, Illinois Heart Association

9:50 "ATHEROSCLEROSIS AND LIPID METABOLISM"

Nelson W. Barker, Professor of Medicine, Mayo Foundation Graduate School, University of Minnesota, Rochester

10:10 "EXPERIENCE IN PEORIA WORK CLASSIFICATION UNIT"

Joint presentation by: James Walsh, Peoria, Henry Wilson, Peoria

10:25 "CARDIOPULMONARY DISEASE"

James A. Campbell, Professor of Medicine, University of Illinois College of Medicine, Chicago

10:40 INTERMISSION TO VIEW EXHIBITS

11:00 PANEL SYMPOSIUM WITH SECTION ON ANESTHESIOLOGY

"SURGICAL CONSIDERATIONS IN PERIPHERAL VASCULAR DISEASE"

Nelson W. Barker, Professor of Medicine, Mayo Foundation Graduate School, University of Minnesota, Rochester

Kenneth E. Kewon, Professor of Anesthesia, University of Missouri Medical School, Columbia

John H. Olwin, Clinical Assistant Professor of Surgery, University of Illinois College of Medicine, Chicago

Business meeting and election of 1959 Section Officers.

SECTION ON EYE, EAR, NOSE AND THROAT

Chairman Pierce W. Theobald, Chicago
Secretary Charles L. Pannabecker, Peoria

Tuesday Morning, May 20, 1958
Ruby Room No. 113

OTOLARYNGOLOGY

- 9:00 "INFECTIOUS MONONUCLEOSIS"
J. J. Potter, Rockford
- 9:20 "MANAGEMENT OF FOREIGN BOD-
IES IN FOOD AND AIR PASSAGES"
Robert Knight, Bloomington
- 9:40 "REPAIR OF MAXIOFACIAL IN-
JURIES BY OPEN REDUCTION:
Adams Technique"
Vern Alder, Danville
- 10:00 "PARAPHARYNGEAL ABSCESS"
W. M. S. Ironside, Chicago
William de Vos, Chicago
- 10:20 "EARLY EXPERIENCES WITH TYM-
PANOPLASTY"
Wiley H. Harrison, Chicago
- 10:40 Business session and election of 1959
Section Officers
- 11:00 ADJOURNMENT TO VIEW EXHIBITS

**LUNCHEONS SCHEDULED FOR
TUESDAY NOON, MAY 20, 1958**
FIFTY YEAR CLUB LUNCHEON — The As-

sembly Room on the Mezzanine Floor.

Dr. Andy Hall, chairman of the Fifty Year Club since its formation in 1937, will preside again this year at the annual complimentary luncheon honoring the members of the Fifty Year Club.

He has made arrangements for Dr. Percival Bailey, Professor of Neurology and Neurological Surgery, and Clinical Professor of Psychiatry at the University of Illinois College of Medicine to speak at the luncheon.

All physicians who have been in the practice of medicine for fifty years or more will be guests of the Illinois State Medical Society at one of the most popular social functions held during the annual meeting.

Tickets for the luncheon are complimentary and may be secured at the ticket desk during the day (Tuesday) or from Doctor Hall.

SECTION ON ANESTHESIOLOGY Room 107

The Section on Anesthesiology has planned a luncheon for members of the Section. Reservations should be made through the Section officers, or tickets should be purchased Tuesday morning so that the correct number of reservations can be made with the Hotel Sherman.

General Assembly

Tuesday Afternoon, May 20, 1958
The Ballroom

Presiding Herman J. Nebel, East St. Louis
Assisting Theodor J. Lang, Rockford

- 1:30 Opening of the General Assembly
Lester S. Reavley, President, Sterling
- 1:40 "ANESTHETIC COMPLICATIONS"
M. Digby Leigh, Los Angeles, California, Chief of Anesthesiology, Children's Hospital; Associate Professor of Surgery (Anesthesiology), University of Southern California School of Medicine
- 2:00 "ROENTGEN EVALUATION OF THE
SOFT TISSUES IN ORTHOPEDICS"
Everett L. Pirkey, Louisville, Kentucky, Professor and Chairman, Department of Radiology, University of Louisville School of Medicine; Director, Department of Radiology, Louisville General Hospital
- 2:20 "SURGICAL TREATMENT OF ANEU-
RYSMS OF THE AORTA"
Ormand C. Julian, Chicago, Associate Professor of Surgery, University of

Illinois College of Medicine; Attend-
ing Surgeon, Presbyterian-St. Luke's
Hospital

2:40 INTERMISSION TO VIEW EXHIBITS
Presiding Pierce W. Theobald, Chicago
Assisting George C. Sutton, Evanston

3:30 "DIAGNOSIS AND TREATMENT OF
ACUTE PERIPHERAL ARTERIAL
OCCLUSION"

Nelson W. Barker, Rochester, Minne-
sota, Professor of Medicine, Mayo
Foundation Graduate School, Uni-
versity of Minnesota

3:50 "CAUSTIC STRICTURES OF THE
ESOPHAGUS"

Paul H. Holinger, Chicago, Professor
of Bronchoesophagology, Depart-
ment of Otolaryngology, University
of Illinois College of Medicine; At-
tending Bronchoesophagologist,
Presbyterian-St. Luke's Hospital, and
Children's Memorial Hospital

Kenneth C. Johnston, Chicago, Clinical
Associate Professor of Bronchoeso-
phagology, Department of Otolaryn-

gology, University of Illinois College of Medicine; Associate Attending Bronchoesophagologist, Children's Memorial Hospital; Attending Bronchoesophagologist, Presbyterian-St. Luke's Hospital

4:10 "DIAGNOSIS AND TREATMENT OF ACUTE PANCREATITIS"

E. Clinton Texter, Jr., Chicago, Assistant Professor of Medicine, and Chief of the Gastroenterology Laboratory and Clinics, Northwestern University Medical School; Chief of the Gastroenterology Service and Director of the training program in Gastroenterology, V.A. Research Hospital,

Northwestern University Medical Center; Attending physician, Passavant Memorial Hospital

SECTION ON RADIOLOGY

Chairman Theodor J. Lang, Rockford
Secretary William Meszaros, Chicago

Tuesday Afternoon, May 20, 1958
Crystal Room

3:30 The guest moderator of the film reading session of the Section on Radiology will be Everett L. Pirkey, Director of Radiology, University of Louisville School of Medicine.

Following the film reading session the hospital-ity hour will be held.

Public Relations Dinner

Tuesday Evening, May 20, 1958

George Bernard Shaw Room

6:30 o'clock

The seventh Public Relations Dinner, sponsored by the Committee on Medical Service and Public Relations of the Illinois State Medical Society, will be held.

Dr. F. J. L. Blasingame, General Manager of the American Medical Association, will be the speaker. Dr. Blasingame's subject will be "It's Your AMA," a topic which will be of great in-

terest to all members and to medical society executives in particular.

Any member of the Illinois State Medical Society interested in any phase of public relations will be most welcome. Members of the Woman's Auxiliary also are invited. Tickets for the dinner will be \$3.50 each, including tip. Reservations should be made in advance through the Society's Chicago office, 185 N. Wabash Avenue, Chicago 1 (FInancial 6-0443).

Programs for Wednesday, May 21, 1958

SECTION ON EYE, EAR, NOSE AND THROAT

Chairman Pierce W. Theobald, Chicago
Secretary Charles L. Pannabecker, Peoria

Wednesday Morning, May 21, 1958

Ruby Room No. 113

OPHTHALMOLOGY

9:00 "SURVEY OF READING AND WORKING DISTANCE IN PRESBYOPIA"
Robert Cannon, Galesburg

9:20 "PRINCIPLES OF LID SURGERY"
F. Bruce Fralick, Ann Arbor, Michigan, Professor of Ophthalmology, University of Michigan Medical School

10:00 "CORNEAL SURGERY IN COMPLICATED CASES"
Howard L. Wilder, Chicago

10:20 "ADVANCES IN MEDICAL TREATMENT OF GLAUCOMA"
William Middleton, Alton

10:40 "SOME OCULAR ASPECTS OF HYPERTHYROIDISM"
Frank W. Newell, Chicago

11:00 INTERMISSION TO VIEW EXHIBITS

SECTION ON PEDIATRICS

Chairman A. R. Eveloff, Springfield
Secretary Lawrence Breslow, Chicago

Wednesday Morning, May 21, 1958

Louis XVI Room

9:00 "BRAIN DAMAGED CHILDREN"
Milton C. Bauman, Springfield, Medical Director, Springfield Mental Health Center.

9:20 "MANAGEMENT OF THE POSITIVE TUBERCULIN REACTOR"
Eugene T. McEnery, Chicago, Clinical Associate Professor Pediatrics, Stritch School of Medicine, Loyola University

9:40 "PYELONEPHRITIS IN CHILDREN: Diagnosis and Treatment"
Jack Metcalf, Chicago, Chairman, Division of Pediatrics, Michael Reese Hospital

10:00 "PSYCHOLOGICAL ASPECTS OF FEEDING IN CHILDREN"
Harry Bakwin, New York City, Profes-

- son of Clinical Pediatrics, New York University Medical School
- 10:30 INTERMISSION TO VIEW EXHIBITS
- 11:00 PANEL — "THE 1957-1958 EPIDEMIC OF INFLUENZA"
- MODERATOR: Mark H. Lepper, Chicago, Professor of Preventive Medicine, University of Illinois College of Medicine
- "Virology and Immunology"
- Howard J. Shaughnessy, Ph.D., Chicago, Professor and Head of Department, University of Illinois College of Medicine, Deputy Director, State Department of Public Health
- "Non-Pulmonary Complications"
- Bessie L. Lendrum, Chicago, Associate in Pediatrics, Michael Reese Hospital
- "Pulmonary Complications"
- Mark H. Lepper, Chicago, Professor of Preventive Medicine and Head of Department, University of Illinois College of Medicine
- "Surgical Complications"
- Saul A. Mackler, Chicago, Clinical Associate Professor of Thoracic Surgery, Chicago Medical School
- 11:45 Business meeting and election of 1959 Section Officers.

The Illinois Chapter, American Academy of Pediatrics will have a luncheon meeting served in the Louis XVI Room for members of the Chapter and guests. The luncheon will adjourn in time to attend the General Assembly at 1:30 p.m.

SECTION ON SURGERY

Chairman Richard H. Lawler, Chicago
Secretary Reginald M. Norris, Jacksonville

Wednesday Morning, May 21, 1958
Crystal Room

- 9:00 "GASTRIC LYMPHOSARCOMA"
- Kent W. Barber, Quincy
Robert W. Taylor, Quincy
- 9:15 "LYMPHANGIOSARCOMA, L A T E COMPLICATION OF MASTECTOMY"
- Robert Patton, Springfield
- 9:30 PANEL SYMPOSIUM — "TUMORS OF THE BREAST" — Diagnosis, Pathology and Treatment
- MODERATOR: Howard P. Sloan, Bloomington
- "Benign Tumors of the Breast" — J. C. Thomas Rogers, Urbana
- "Malignant Tumors of the Breast" — Louis P. River, Oak Park, Professor of Surgery, Stritch School of Medicine
- "Radiation Therapy" — Peter A. Nel-

- son, Chicago, Associate Professor of Surgery, Stritch School of Medicine
- "Pathology of Diseases of the Breast" — Harry A. Oberhelman, Chicago, Professor and Chairman, Department of Surgery, Stritch School of Medicine
- 10:45 PANEL SYMPOSIUM — "EPIGASTRIC PAIN" — Diagnosis, Pathology and Treatment
- MODERATOR: Everett P. Coleman, Canton, Past President, Western Surgical Association
- "Gall Bladder and Bile Ducts" — John T. Reynolds, Chicago, Associate Professor of Surgery, University of Illinois College of Medicine
- "Pancreas" — Charles B. Puestow, Chicago, Professor of Surgery, University of Illinois College of Medicine
- "Stomach" — Peter A. Rosi, Chicago, Professor of Surgery, Cook County Graduate School of Medicine; Associate Professor of Surgery, Northwestern University Medical School
- "Esophagus" — William J. Gillesby, Hines, Attending Surgeon, Veterans Administration Hospital
- 12:00 Business meeting and the election of Section officers for 1959.

PHYSICIANS' ASSOCIATION of the DEPARTMENT OF PUBLIC WELFARE State of Illinois

Wednesday Morning, May 21, 1958
Gold Room No. 114

- CHAIRMAN: Werner Tuteur, Clinical Director, Elgin State Hospital
- 10:00 "PSYCHOTHERAPY AND RELIGION"
- Rev. Clarence L. Bruninga, Protestant Chaplain, Elgin State Hospital, Elgin
- 10:30 "RORSCHACH STUDY AND DIFFERENTIAL DIAGNOSIS"
- Philip Bower, Ph.D., Chief Supervising Psychologist, Elgin State Hospital, Elgin
- 11:00 "PLACEBO EFFECT IN TRANQUILIZER THERAPY"
- A. Barron, Galesburg
R. Edwalds, Galesburg
Galesburg State Hospital, Galesburg
- 11:30 "AGRANULOCYTOSIS AND JAUNDICE APPEARING DURING TREATMENT WITH CHLORPROMAZINE"
- Werner Tuteur, Elgin
Geoffrey Kent, Elgin

Rochus Stiller, Elgin State Hospital,
Elgin

A luncheon for the physicians and their wives is being planned. Announcement of the time and place will follow.

LUNCHEONS SCHEDULED FOR WEDNESDAY NOON, MAY 21, 1958

Illinois Chapter, AMERICAN ACADEMY OF
PEDIATRICS — Louis XVI Room

Following the meeting of the Section on Pediatrics on Wednesday morning, luncheon will be served in the Louis XVI Room for members of the Illinois Chapter of the American Academy of Pediatrics, and any others interested in attending.

The luncheon will adjourn in time for the opening of the General Assembly at 1:30 at which will be presented the President's Address, the Address in Medicine and the Address in Surgery.

Illinois Chapter, AMERICAN ACADEMY OF
GENERAL PRACTICE — Assembly Room
Mezzanine 11:45

The Illinois Academy of General Practice has made arrangements to have a luncheon meeting again this year during the annual meeting of the Illinois State Medical Society.

All physicians are welcome to attend; members of the Academy are especially invited to be present.

Officers of the Illinois Chapter are:

President A. I. Doktorsky, Chicago
President Elect Robert E. Heerens, Rockford
Vice President . Clinton D. Swickard, Charleston
Treasurer C. G. Sachtleben, Chicago
Executive Secretary .. H. Marchmont-Robinson,
Chicago

PHYSICIANS' ASSOCIATION, Department of
Public Welfare, Luncheon. Details to be announced.

Hear the President's Address, the Address in Medicine and the Address in Surgery at this General Assembly

Wednesday Afternoon, May 21, 1958
The Ballroom

Presiding Richard H. Lawler, Chicago
Assisting William H. Wehrmacher, Chicago

1:30 The President's Address: "THE PHYSICIANS' SILENT PARTNER"
Lester S. Reavley, Sterling

2:00 The Annual Address in Medicine: "THE PLACE OF ORAL HYPOGLYCEMIC AGENTS IN THE MANAGEMENT OF DIABETES"

Alexander Marble, Boston, Massachusetts, Assistant Clinical Professor of Medicine, Harvard Medical School; Physician, Joslin Clinic and New England Deaconess Hospital; First Vice President, American Diabetes Association

2:30 The Annual Address in Surgery: "HYPERTENSION — DRUGS AND SURGERY"

Keith S. Grimson, Durham, North Carolina, Professor of Surgery, Duke University School of Medicine

3:00 INTERMISSION TO VIEW EXHIBITS
Presiding A. R. Eveloff, Springfield
Assisting Lawrence Breslow, Chicago

3:30 "POISONING CONTROL PROGRAM IN ILLINOIS"

Joseph R. Christian, Chicago, Professor, Department of Pediatrics, Stritch School of Medicine of Loyola University; Mercy Hospital and LaRabida Sanitarium

3:50 "OCULAR MANIFESTATIONS OF GENERAL DISEASE"

F. Bruce Fralick, Ann Arbor, Michigan, Professor of Ophthalmology, University of Michigan Medical School

4:10 "DISTURBANCES OF BLADDER AND BOWEL CONTROL IN CHILDREN"

Harry Bakwin, New York City, Professor of Clinical Pediatrics, New York University; Visiting Physician, Bellevue Hospital; Attending Pediatrician, University Hospital.

The Annual Dinner

Wednesday Evening, May 21, 1958
The Ballroom
7:00 o'clock

The annual dinner this year will honor Dr. Lester S. Reavley of Sterling, the retiring president of the Illinois State Medical Society. The toastmaster will be the immediate past president, Dr. F. Lee Stone of Chicago.

For the fourth year the Health Progress Awards will be presented by the president to the individual and the group contributing in an outstanding manner to the health and welfare of the citizens of Illinois.

The dinner speaker this year will be Dr. Carl

S. Winters, appearing through the courtesy of General Motors. Doctor Winters served as Crime Commissioner of Michigan; he served for five years as Chairman of the Skid Row Commission of Chicago, advisor on the Juvenile Board of Sheriff Lohman of Cook County, and for 19 years as minister of the First Baptist Church of Oak Park. The subject of his talk will be "The Doctors' Glory Road."

The past presidents and guests will be introduced by the toastmaster, Doctor Stone, and the President's Certificate will be presented to Doctor Reavley by the Chairman of the Council, Dr. H. Close Hesseltine.

Programs for Thursday, May 22, 1958

WOMEN PHYSICIANS' BREAKFAST

Thursday Morning, May 22, 1958

Orchid Room No. 106

8:00

On Thursday morning, May 22, the women physicians registered at the 1958 annual meeting will be guests of the Illinois State Medical Society at a complimentary breakfast meeting.

This annual breakfast has been held for several years, and the women physicians have enjoyed a short program before the scientific sessions open at 9:00 o'clock.

The committee in charge this year is:

Chairman Augusta Webster, Chicago
Vice Chairman Bertha Isaacs, Chicago
Gertrude M. Engbring, Chicago
Rose V. Menendian, Chicago
Edna Z. Mortimer, Joliet
Mary Louise Newman, Jacksonville

Tickets may be secured at the official ticket desk on the mezzanine floor until closing hour on Wednesday afternoon, May 21.

SECTION ON ALLERGY

Chairman Helen C. Hayden, Chicago
Secretary George Frauenberger, Evanston
Thursday Morning, May 22, 1958
Jade Room, No. 103

9:00 "INSECT ALLERGY"

Alan R. Feinberg, Chicago

9:20 "DIFFERENTIAL DIAGNOSIS OF
BRONCHIAL ASTHMA IN IN-
FANCY AND CHILDHOOD"

Jerome Glaser, Rochester, New York,

Clinical Associate Professor of Pediatrics, University of Rochester School of Medicine

9:45 "PRACTICAL MANAGEMENT OF ALLERGIC DISEASES"

Ray F. Beers, Jr., Chicago

10:10 Short recess

10:15 PANEL — "ALLERGY IS CHANGING"

This panel is based solely on questions submitted by the audience. Please submit them before or during the meeting to the moderator.

MODERATOR: Max Samter, Allergy Unit, University of Illinois College of Medicine

Abraham L. Aaronson

Samuel M. Feinberg

Ben Z. Rappaport

David W. Talmage

11:15 Business meeting and election of 1959 Section Officers

11:30 ADJOURNMENT TO VIEW EXHIBITS

SECTION ON MEDICINE

Chairman ... William H. Wehrmacher, Chicago
Secretary Charles F. Downing, Decatur
Thursday Morning, May 22, 1958
Gold Room No. 114

9:00 "THE MANAGEMENT OF PATIENTS WITH ACUTE INFECTIOUS HEPATITIS"

Richard D. Eckhardt, Chicago, Chief, Medical Service, Veterans Administration West Side Hospital

(9:15 Discussion period)

- 9:20 "A CLINICAL TEST FOR RECOGNITION OF CHEST AND ABDOMINAL PAIN DUE TO ESOPHAGITIS"
Robert Fruin, Hines, Veterans Administration Hospital
(9:35 Discussion period)
- 9:40 "DYNAMIC EQUILIBRIUM OF RED CELL PRODUCTION"
Clifford Gurney, Chicago, Department of Medicine, University of Chicago College of Medicine
(9:55 Discussion period)
- 10:00 "STAPHYLOCOCCAL PNEUMONIA"
William T. Couter, Decatur, The Decatur Clinic
(10:15 Discussion period)
- 10:20 INTERMISSION TO VIEW EXHIBITS
- 10:50 "SUICIDAL POISONINGS"
Frank B. Norbury, Jacksonville, The Norbury Sanatorium
(11:05 Discussion period)
- 11:10 "PRACTICAL ASPECTS OF INFLUENZA VACCINATION"
Alton J. Morris, Springfield, Formerly, Department of Medicine, University of Colorado
(11:25 Discussion period)
- 11:30 "COMMON KIDNEY DISEASES"
John M. Coleman, Chicago, Vaughn Medical Center
(11:45 Discussion period)
- 11:50 "AORTIC STENOSIS — DIAGNOSTIC CONSIDERATION"
Donald Edgren, Rockford
(12:05 Discussion period)
- 12:10 Election of Section officers for 1959

SECTION ON DERMATOLOGY

Chairman Samuel J. Zakon, Chicago
Secretary John M. McCuskey, Peoria

THURSDAY MORNING, May 22, 1958
Old Chicago Room No. 101

- 9:00 Chairman's Address: "JAMES NEVINS HYDE, Pioneer Chicago Dermatologist"
Samuel J. Zakon, Chicago, Chairman, Section on Dermatology

9:15 To be announced.

- 9:30 PANEL — "THE DIAGNOSIS AND TREATMENT OF LIGHT SENSITIVE DERMATOSES"
This panel will discuss the diagnosis and management of the increasing number of light sensitive dermatoses.
MODERATOR: Herbert Rattner, Chicago,

go, Professor and Chairman, Department of Dermatology, Northwestern University Medical School

Otto C. Stegmaier, Jr., Davenport, Iowa
Jerome F. Sickley, LaSalle

Arthur L. Shapiro, Chicago, Assistant Professor of Dermatology, Chicago Medical School

Anthony C. Cipollaro, New York City, Professor and Director, Department of Dermatology and Syphilology, New York Polyclinic Medical School and Hospital

10:30 INTERMISSION TO VIEW EXHIBITS

11:00 PANEL — "DIAGNOSIS AND TREATMENT OF DISEASES OF THE SCALP"

MODERATOR: James Herbert Mitchell, Chicago, Rush Clinical Professor Emeritus of Dermatology, University of Illinois College of Medicine

Irene Neuhauser, Chicago, Clinical Associate Professor of Dermatology, University of Illinois College of Medicine

Allan L. Lorincz, Chicago, Associate Professor of Dermatology, University of Chicago College of Medicine
Harold Shellow, Chicago, Clinical Associate Professor of Dermatology, University of Illinois College of Medicine

Julius E. Ginsberg, Chicago, Associate Professor of Dermatology, Northwestern University Medical School

Anthony C. Cipollaro, New York City, Professor and Director, Department of Dermatology and Syphilology, New York Polyclinic Medical School and Hospital

12:00 LUNCHEON — for members of the Section and their guests.

BUSINESS SESSION — and election of 1959 Section Officers

ADJOURNMENT in time to attend General Assembly in Ballroom at 1:30

SECTION ON PREVENTIVE MEDICINE AND PUBLIC HEALTH

Chairman Jackson P. Birge, Rock Island
Secretary Herbert S. Miller, Winnetka
Thursday Morning, May 22, 1958
Assembly Room

9:00 "ACCIDENTAL POISONING — EVERYONE'S PROBLEM!"

Joseph R. Christian, Chicago, Professor,
Department of Pediatrics, Stritch
School of Medicine, Loyola University;
Chairman, Poison Control Committee,
Illinois Chapter, American Academy of
Pediatrics

9:25 "THE COUNTY MEDICAL SOCIETY — HEALTH DEPARTMENT PART- NERSHIP IN PENNSYLVANIA"

James D. Weaver, Erie, Pennsylvania,
Vice President, Pennsylvania Academy
of General Practice; President, Penn-
sylvania Health Council, Inc.

9:55 "ADULT VACCINATION"

Mark H. Lepper, Chicago, Professor and
Head of Department, Preventive Medi-
cine, University of Illinois College of
Medicine

10:15 "TONOMETRY AND THE PREVEN- TION OF BLINDNESS"

E. A. Pushkin, Chicago, Assistant Profes-
sor of Clinical Ophthalmology, Uni-
versity of Illinois College of Medicine

10:45 Business session and election of 1959 sec- tion officers.

11:00 ADJOURNMENT TO VIEW EXHIBITS

12:00 LUNCHEON — Section on Preventive Medicine and Public Health Illinois Academy of Preventive Medicine Illi- nois Association of Medical Health Of- ficers Illinois Chapter, American As- sociation of Public Health Physicians PROGRAM: "What Every Health Officer Should Know about Radiation"

Warren W. Furey, Chicago, Clinical
Professor of Roentgenology, Stritch
School of Medicine, Loyola Univer-
sity

Illinois Chapter

AMERICAN COLLEGE OF CHEST PHYSICIANS

THURSDAY MORNING, May 22, 1958
Crystal Room

8:30 REGISTRATION

9:00 SCIENTIFIC SESSION

Presiding—William E. Adams, Chi-

cago, Vice President, Illinois Chap-
ter

BRONCHIAL ASTHMA FIFTY YEARS AGO AND TODAY

Max Samter, Associate Professor of
Medicine, University of Illinois Col-
lege of Medicine, Chicago

TREATMENT OF HYPERTENSION

Sibley W. Hoobler, Associate Professor
of Internal Medicine, University of
Michigan Medical School, Ann Ar-
bor, Michigan

ETIOLOGICAL FACTORS IN THE PRODUCTION OF LUNG CANCER

Wilhelm C. Hueper, Chief, Cancerogenic
Studies Section, National Cancer In-
stitute, Bethesda, Maryland

Questions and discussion from the floor

12:00 Luncheon and business meeting, Illinois Chapter, American College of Chest Physicians

LUNCHEONS SCHEDULED FOR THURSDAY NOON, May 22, 1958

GROUP LUNCHEON — Illinois Academy of
Preventive Medicine Section on Preventive
Medicine and Public Health Illinois Associa-
tion of Medical Health Officers Illinois Chap-
ter, American Association of Public Health
Physicians

12:00 noon in the Assembly Room on the
Mezzanine Floor.

Program — Warren W. Furey, Chicago

Tickets available at the ticket desk until 11:00
a.m. on Thursday.

The price will be \$3.50 and tax and tip are
included.

Illinois Chapter, AMERICAN COLLEGE OF
CHEST PHYSICIANS — Orchid Room No.
106. Business meeting of the Illinois Chapter
follows the scientific program held Thursday
morning.

SECTION ON DERMATOLOGY — luncheon for
members of the section and their guests. Busi-
ness meeting and the election of 1959 section
officers. Old Chicago Room, No. 101, following
the scientific program.

PHI CHI LUNCHEON — Life Room No. 106.
The Phi Chi fraternity will have a luncheon
meeting on Thursday noon. Dr. Jacob E.
Reisch, Springfield, editor of the Phi Chi
Bulletin, will be in charge of plans. All mem-
bers of the fraternity are welcome, and reserva-
tions can be made by writing to Doctor Reisch,
1129 South Second Street, Springfield.

General Assembly

THURSDAY AFTERNOON, MAY 22, 1958

The Ballroom

Presiding Helen C. Hayden, Chicago
Assisting Vincent C. Freda, Chicago

1:30 "THE PRESENT STATUS OF DERMATOLOGIC X-RAY THERAPY"

Anthony C. Cippollaro, New York, Professor and Director, Department of Dermatology, New York Polyclinic Medical School and Hospital; Associate Professor of Medicine (Dermatology), Cornell University Medical School

1:50 "DIFFERENTIAL DIAGNOSIS OF ECZEMATOID DERMATOSES IN INFANCY AND CHILDHOOD"

Jerome Glaser, Rochester, New York, Clinical Associate Professor of Pediatrics, University of Rochester School of Medicine

2:10 "CONSERVATION OF THE OVARY"

Clyde L. Randall, Buffalo, New York, Professor of Obstetrics and Gynecology, University of Buffalo Medical School; Consultant in Gynecology, J. N. Adam Memorial Hospital, Perrysburg, New York; Consultant in Obstetrics and Gynecology, Douglas Memorial Hospital, Fort Erie, Ontario

2:30 INTERMISSION TO VIEW EXHIBITS

Presiding James W. Henry, Evanston

Assisting Jackson P. Birge, Rock Island

3:10 "RADIOISOTOPES AS PRACTICAL DIAGNOSTIC AIDS"

Oscar B. Hunter, Jr., Washington, D. C., Adjunct Professor of Clinical Pathology, American University; President, American Association of Blood Banks

3:30 "MEDICAL ASPECTS OF MAN IN SPACE"

Norman Lee Barr, Capt. U.S.N., M.C., Washington, D. C. Director for Aviation Medicine Research and Deputy Director for Medical Research, Department of the Navy

3:50 "THE GENERALIST VIEWS PUBLIC HEALTH"

James D. Weaver, Erie, Pennsylvania, Vice-President, Pennsylvania Academy of General Practice; President, Pennsylvania Health Council, Inc.

4:10 "MANAGEMENT OF THE HYPERCHOLESTEROLEMIC PATIENT"

William B. Parsons, Jr., Madison, Wisconsin, Director of Research, Jackson Clinic

Programs for Friday, May 23, 1958

SECTION ON PATHOLOGY

Chairman James W. Henry, Evanston
Secretary Frederick C. Bauer, Jr., Chicago

FRIDAY MORNING, MAY 23, 1958

Louis XVI Room

JOINT MEETING ILLINOIS SOCIETY OF PATHOLOGISTS, ILLINOIS ASSOCIATION OF BLOOD BANKS NORTH CENTRAL REGION, COLLEGE OF AMERICAN PATHOLOGISTS

with the

SECTION ON PATHOLOGY,

Illinois State Medical Society

9:00 "ABC'S OF ISOTOPES IN MEDICINE"

Austin Brues, Chicago

Questions and Answers

10:15 "A.E.C. AND ECONOMIC REQUIREMENTS FOR AN ISOTOPE LABORATORY"

Donalee L. Tabern, Ph.D. North Chicago

10:45 INTERMISSION

11:15 "THE PATHOLOGIST AND THE ISOTOPE LABORATORY"

Oscar B. Hunter, Jr., Washington, D. C., Adjunct Professor of Clinical Pathology, American University; President, American Association of Blood Banks.

Questions and Answers

12:00 LUNCHEON in the Crystal Room

BUSINESS MEETING — Illinois Society of Pathologists

2:00 "THE ROLE OF A BLOOD BANK IN AN ISOTOPE LABORATORY"

Oscar B. Hunter, Jr., Washington, D. C.

Questions and Answers

3:00 "METHODOLOGY AND DEMONSTRATIONS OF RADIOISOTOPES"

Donalee L. Tabern, Ph.D. North Chicago

Questions and Answers

4:30 BUSINESS MEETING — Illinois Association of Blood Banks

Scientific Exhibits

Coye C. Mason, Director and Chairman . Chicago
 Arkell M. Vaughn Chicago
 Charles P. McCartney Chicago
 Leo M. Zimmerman Chicago
 L. W. Peterson Chicago
 Harold L. Method Chicago
 Everett P. Coleman Canton
 J. C. Thomas Rogers Urbana

EXHIBIT No. 1

TITLE: Posthemorrhagic Shock in the New-born — An Emergency Responsibility at Delivery.

NAME OF EXHIBITORS: George Z. Wickster, Joseph R. Christian.

INSTITUTION: Stritch School of Medicine, Loyola University, Departments of Obstetrics, Gynecology and Pediatrics, Chicago.

DESCRIPTION: Etiology, differential diagnosis and treatment. Causes grouped: (1) placenta previa and abruptio placenta; (2) incision into anterior placenta or its vessels at cesarean section; (3) ruptures into umbilical vessels in vasa previa, velamentous insertion of cord, over-stretching of cord, and thrombosis in umbilical vessels and (4) unapparent hemorrhage from terminal capillaries of the villi into the maternal circulation or into the placenta.

EXHIBIT No. 2

TITLE: Intestinal Obstruction and Adynamic Ileus: Roentgen Differentiation.

NAME OF EXHIBITORS: Israel E. Kirsh and George Koptik.

INSTITUTION: Veterans Administration Hospital, Hines.

DESCRIPTION: Roentgenograms (with explanatory diagrams). Diagnostic signs in proved cases.

EXHIBIT No. 3

TITLE: New Knowledge of Non-Migrainous Headache.

NAME OF EXHIBITOR: Adrian M. Ostfeld.

INSTITUTION: University of Illinois Research and Education Hospitals, Chicago.

DESCRIPTION: Illustration of non-migrainous headache, entities of allergic headache, hypertensive headache, post-traumatic and muscle-contraction headache; clinical features, laboratory studies and treatment; Some data not as yet described in the medical literature.

EXHIBIT No. 4

TITLE: Intracranial Cautery by Radioactive Implants under Guidance of the Image Intensifier.

NAME OF EXHIBITORS: Sean Mullan and William Ironside.

INSTITUTION: University of Chicago.

DESCRIPTION: Demonstration radiations and cauterizing effects of the radioactive isotopes, palladium 109 and yttrium 90. Use in treatment of Parkinson's disease by selective destruction of the basal ganglia and in control of carcinoma of the breast by destruction of the pituitary gland. Image intensified X-ray shown; technique of placement described; X-rays of the isotopes in place in view.

EXHIBIT No. 5

TITLE: Prevention and Management of Prematurity.

NAME OF EXHIBITORS: Frederick H. Falls and Charlotte S. Holt.

INSTITUTION: Illinois State Department of Public Health, Springfield.

DESCRIPTION: Illustration of various phases of the problems of prematurity; etiology, anatomy and physiology, pathology, treatment and description of team whose responsibility is service of involved problems.

EXHIBIT No. 6

TITLE: Cancer Cells in the Circulating Blood.

NAME OF EXHIBITORS: Alvin L. Watne, Stuart S. Roberts, Ruth G. McGrath, Elizabeth G. McGrew, Warren H. Cole.

INSTITUTION: University of Illinois Departments of Surgery and Pathology, Chicago.

DESCRIPTION: Demonstration of exfoliation of cancer cells into the circulating blood; methods of blood collection and technique of isolation of cancer cells from the formed blood elements. Results given including incidence of occurrence of cancer cells in the circulating blood and the effects of surgery and chemotherapy.

EXHIBIT No. 7

TITLE: Development of Speech During the First Five Years.

NAME OF EXHIBITOR: Duncan R. C. Scott.

INSTITUTION: Presbyterian-St. Lukes Hospital, The Speech and Hearing Center, Chicago.

DESCRIPTION: Development of speech from

birth through the first five years of life. Speech a medium of social adjustment. Status of speech included in the case history of the physician.

EXHIBIT No. 8

TITLE: Circulatory System Changes Associated with Orthopedic Conditions (by Decades).

NAME OF EXHIBITORS: Donald S. Miller and Rowlin Lichter.

INSTITUTION: Chicago Medical School, Cook County Hospital, Chicago.

DESCRIPTION: Illustration of various combinations of system problems from infancy to old age. Life size lucite figurine with various osseous, circulatory conditions. Arteriosclerosis depicted, associated with some orthopedic conditions. Enlargements of various age group blood vessels (femoral arteries) depicting changes from infancy to old age.

EXHIBIT No. 9

TITLE: Ringworm Infections of Skin and Nails. (Further Experiences in the Treatment with New Absorbent Powder and New Penetrating Base.)

NAME OF EXHIBITOR: Cleveland J. White
INSTITUTION: Stritch School of Medicine, Loyola University, Chicago.

DESCRIPTION: Demonstration of the absorbability of this new organic cellulose powder; charts depicting its constitution; photographs showing conditions in which it should be used.

EXHIBIT No. 10

TITLE: Congeners: Meaning; Analysis.

NAME OF EXHIBITOR: Alexander W. Biddle, New York.

DESCRIPTION: Congeners (fusel oil, aldehydes, acids, etc) compounds found in all alcohol beverages providing taste, bouquet and color. In too high concentrations they can cause undesirable after effects. Analyses of brands of various alcohol beverages which differ in congeneric concentration.

EXHIBIT No. 11

TITLE: Pathways of Vitamin A in the Skin.

NAME OF EXHIBITORS: Theodore Cornbleet and Ruven Greenberg.

INSTITUTION: University of Illinois College of Medicine, Chicago.

DESCRIPTION: Illustration of route of vitamin A from time of origin in the sebaceous gland until it reaches the skin surface via the follicle. Absorption of the vitamin from the skin surface takes place and it is found in the epidermis.

Plugging of the follicle prevents passage of the vitamin to the skin surface and subsequent absorption into the epidermis.

EXHIBIT No. 12

TITLE: Cancer of the Cervix.

NAME OF EXHIBITOR: John A. Rogers.

INSTITUTION: American Cancer Society, Illinois Division, Inc., Chicago.

DESCRIPTION: Pattern of growth from minimal lesion to involvement of all regional nodes; methods of obtaining and preparing vaginal and cervical smears, illustration of normal, suspicious and positive; biopsy techniques; investigative procedures depending upon smear findings, symptoms and physical findings, five year cure rates in cancer of the cervix.

EXHIBIT No. 13

TITLE: Care of the Premature Infant.

NAME OF EXHIBITOR: Arthur W. Fleming.

INSTITUTION: Stritch School of Medicine, Loyola University, Chicago.

DESCRIPTION: Elements of good premature care; cooperation involved to attain goal; analysis of experience in premature care in Chicago area.

EXHIBIT No. 14

TITLE: A Major Learning Program.

NAME OF EXHIBITORS: Harold Swanberg.

INSTITUTION: Quincy Major Learning Program, Quincy.

DESCRIPTION: Physician-interest in education at high school level. Half the students in the top quarter of their high school graduating class don't go to college and the result is a high loss of a precious national resource. The program attempts to overcome this by seeking talented high school youth and doing everything to motivate them for a college education.

EXHIBIT No. 15

TITLE: History and Development of The Fantus Blood Preservation Laboratory 1937-1957.

NAME OF EXHIBITOR: John R. Tobin, Director of Blood and Parenteral Therapy, Cook County Hospital, Chicago.

DESCRIPTION: Commemoration of 20th anniversary of the founding of the first blood bank in the United States by Dr. Bernard Fantus at Cook County Hospital in 1937. Significant steps in the evolution of blood transfusion. Original methods used for collecting and processing blood in the blood bank contrasted with current method. Data showing advances made in the

preservation and use of blood during the first 20 years of blood banking.

EXHIBIT No. 16

TITLE: New Methods of Nasal Examination
NAME OF EXHIBITORS: Maurice H. Cottle, Roland Loring, George Fischer, Douglas Mazique, Emil Kromery.

INSTITUTION: Chicago Medical School.
DESCRIPTION: Enumeration and illustration of methods of nasal examination currently employed. New additional methods for examination of nasal vestibule and its important anatomical landmarks indicated. Important aids to diagnosis illustrated; recognition of facial, nasal and dental asymmetries and anthropological and ethnic characteristics. Measurement of air pressures in the nasal vestibule — apparatus available for use of exhibit visitors. Diagrams of neurological relationship between the nose and distant organs accompanying demonstration of correlation of nasal pressure and thoracic cage movements.

EXHIBIT No. 17

TITLE: Special Service for the Blind.

NAME OF EXHIBITOR: Otto L. Bettag, Director, Illinois Department of Public Welfare, Springfield.

DESCRIPTION: Procedures relating to the reporting of patients with major visual limitations; demonstration of services and activities for the blind provided by state agencies.

EXHIBIT No. 18

TITLE: Have You Thought of Public Health As a Career?

NAME OF EXHIBITOR: Roland R. Cross, State of Illinois, Department of Public Health, Springfield.

DESCRIPTION: Department's residency program, job Opportunities, salary; duties and functions of the Public Health physician.

EXHIBIT No. 19

TITLE: Some Activities of the Chicago's Medical Physicists.

NAME OF EXHIBITOR: Walter S. Moos, University of Illinois.

INSTITUTION: Radiation and Medical Physics Society of Chicago.

DESCRIPTION: Demonstration of relationship between the medical physicist and the physician; activities of medical physicists in the Chicago area.

EXHIBIT No. 20

TITLE: Vocational Rehabilitation Looks to Private Enterprise.

NAME OF EXHIBITOR: Otto L. Bettag, Execu-

tive Officer, Illinois Division of Vocational Rehabilitation, Springfield.

DESCRIPTION: Number of physically handicapped persons rehabilitated in Illinois in 1957, services received by purchase from private institutions and individuals; demonstration of special skills by disabled persons as the result of vocational rehabilitation.

EXHIBIT No. 21

TITLE: Perinatal Mortality and Morbidity.

NAME OF EXHIBITOR: George W. Cooley, Secretary — Council on Medical Service, Committee on Maternal and Child Care, American Medical Association, Chicago.

DESCRIPTION: Extent of problem, what is being done and extent of activity.

EXHIBIT No. 22

TITLE: Developmental Approach to Pediatric Occupational Therapy.

NAME OF EXHIBITOR: Miss Janet Engbring.
INSTITUTION: Illinois Occupational Therapy Association, Chicago.

DESCRIPTION: Evaluation, treatment, management and training techniques by the occupational therapist in the area of pediatrics.

EXHIBIT No. 23

TITLE: Don't Let a Stroke Strike You Out!

NAME OF EXHIBITOR: Elizabeth L. Jameson.
INSTITUTION: Illinois Association for the Crippled, Inc. (Easter Seal Society) Springfield.

DESCRIPTION: Use of physical, occupational and speech therapy in rehabilitation of the stroke patient.

EXHIBIT No. 24

TITLE: Common Kidney Diseases — Diagnosis and Management.

NAME OF EXHIBITOR: John M. Coleman and Garth F. Tagge.

INSTITUTION: Mercy Hospital, Stritch School of Medicine of Loyola University and Vaughn Medical Group, Chicago.

DESCRIPTION: Anatomical and pathological drawings of the kidney with cards describing diagnosis and management.

EXHIBIT No. 25

TITLE: Home Nursing, Mother-Baby Care and First Aid.

NAME OF EXHIBITOR: John W. Angle.
INSTITUTION: The American Red Cross, Chicago.

EXHIBIT No. 26

TITLE: Trends in Public Assistance.

NAME OF EXHIBITOR: Peter W. Cahill.
INSTITUTION: Illinois Public Aid Commission, Chicago.

1958 Technical Exhibitors

The firms listed here deserve and will appreciate a visit to their exhibits. You will find such a visit interesting and intellectually profitable.

Abbott Laboratories, Booth 2
Arnar-Stone Laboratories, Inc., Booth 28
Audio-Digest Foundation, Booth 4

The Baker Laboratories, Inc., Booth 74
Baxter Laboratories, Inc., Booth 77
Blue Cross-Blue Shield, Booths 42 and 43
The Book House for Children, Booth 55
Borchardt Company, Booth 62
Bristol Myers Products Division, Booth 33
Brooks Appliance Company, Inc., Booth 5
Brownberry Ovens, Inc., Booth 63

Chicago Pharmacal Company, Booth 68
Ciba Pharmaceutical Products, Inc., Booth 47
The Coca-Cola Company, Booth 17

Daniels Surgical & Medical Supplies, Booths 15, 16 and 17
Desitin Chemical Company, Booth 27
Doho Chemical Corporation, Booth 32

Eaton Laboratories, Booth 3
Eisele & Company, Booth 7
Emanem Laboratories, Booth 39
Encyclopedia Britannica, Booth 58

E. Fougera & Company, Inc., Booth 25

Geigy Pharmaceuticals, Booth 66

Jackson-Mitchell Pharmaceuticals, Inc., Booth 48
Johnson & Johnson, Booth 73

Lederle Laboratories, Booth 6
Eli Lilly and Company, Booth 31
J. B. Lippincott Company, Booth 59
Lloyd Brothers, Inc., Booth 13
Loma Linda Food Company, Booth 21
P. Lorillard Company, Booths 56 and 57

S. E. Massengill Company, Booth 18
Medical Aids, Inc., Booth 72

Medical Protective Company, Booth 75
Medical Surgical Service of Illinois, Booth 36
Merck, Sharp & Dohme, Booth 64
The C. V. Mosby Company, Booth 76
V. Mueller & Company, Booth 79

Nordmark Pharmaceutical Laboratories, Inc., Booth 20
Hermien Nusbaum & Associates, Booth 26

Parke, Davis & Company, Booth 71
Parker, Aleshire & Company, Booth 9
Pfizer Laboratories, Booth 61
Professional Management, Booth 22
Purdue Frederick Company, Booth 36

Reed & Carnrick, Booth 44
R. J. Reynolds Company, Booth 46
A. H. Robins Company, Booth 38
J. B. Roerig & Company, Booth 24
Chester H. Roth Company, Booth 40

Sanborn Company, Booth 29
W. B. Saunders Company, Booth 69
Schering Corporation, Booth 65
G. D. Searle & Company, Booth 70
7-Up Developers' Assn. of Illinois, Booth 1
Sherman Laboratories, Booth 45
E. R. Squibb & Sons, Booth 19
Standard Process Laboratories, Booth 34
R. J. Strassenburgh Company, Booth 60

Thermo-Fax Sales Corporation, Booths 11 and 12
S. J. Tutag & Company, Booth 35

United States Tobacco Company, Booth 37
The Upjohn Company, Booth 67

Wallace Laboratories, Booth 8
Westwood Pharmaceuticals, Booth 78
Winthrop Laboratories, Booth 10

The 1958

WOMAN'S AUXILIARY

PROGRAM

Registration

Lobby Floor	Sherman Hotel	
Tuesday May 20th	8:00 AM to 4:00 PM	
Wednesday May 21st	8:30 AM to 4:00 PM	

Hostesses will welcome Members and Guests
in the Hospitality Room Orchid Room No. 106

PRE-CONVENTION SCHEDULE

Tuesday, May 20th
Pre-Convention Board Meeting
Life Room No. 108 8:30 AM

CONVENTION PROGRAM

Tuesday, May 20th
George Bernard Shaw Room

Formal opening of the Thirtieth Annual Meeting
10:00 AM

Mrs. Nicholas G. Chester,
President, Presiding

Invocation The Rev. Dr. Warren N. Clark,
Pastor, River Forest Methodist Church

Pledge to the Flag Mrs. Harlan English,
Treasurer Woman's Auxiliary to the AMA

Pledge of Loyalty Mrs. James P. Simonds,
Woman's Aux. to the American Medical Asso.

Welcome Mrs. Sherman C. Arnold,
Woman's Aux. to the Chicago Medical Society

Response Mrs. William Blender, Jr.,
Woman's Auxiliary to the
Peoria County Medical Society

Report of Credentials and Registration Committee
..... Mrs. W. W. Davidson, Chairman

Reading of the Convention Rules of order
..... Mrs. Percy M. Clark, Parliamentarian

Adoption of Convention Program

Announcement of Reference Committee Appoint-
ments

Appointment of Committee on Courtesy and Reso-
lutions

Appointment of Election Committee

Appointment of Reading Committee

Greeting from the Illinois State Medical Society
Walter C. Bornemeier, M.D.,
Chairman of the Advisory Committee

Convention Announcements
Mrs. Michael G. Maitino, Convention Chairman

Memorial Services
..... Conducted by Mrs. B. K. Lazarski

Report of the Revision Committee
..... Mrs. Clarence McClelland, Chairman

Afternoon Session

2:00 PM LOUIS XVI ROOM

Tea

Chairman Mrs. Richard E. Westland
Co-Chairman Mrs. Sherman C. Arnold

Members of the Board of the
Woman's Auxiliary

to the

Chicago Medical Society

Program to be

Announced

6:30 PM PUBLIC RELATIONS DINNER

Percy E. Hopkins, M.D., Chairman

All Members of the Woman's Auxiliary are in-
vited to attend and bring guests.

Second Session — Delegates

Wednesday May 21, 1958

Continental Breakfast

George Bernard Shaw Room 8:00 AM to 9:00 AM

honoring

Mrs. Paul C. Craig,

President

Woman's Auxiliary

to the

American Medical Association

Second Delegate Session

George Bernard Shaw Room 9:15 AM

WORKSHOP

Program Moderator .. Mrs. George L. Pastnack,
Program Chairman, Woman's Auxiliary to ISMS

Introductions

Mrs. Paul C. Craig, National President

Introduction given by:

Mrs. Nicholas G. Chester,

President, Woman's Auxiliary, ISMS

A report on PUBLIC RELATIONS. Introduc-
tion-Percy Hopkins, M.D.

Mr. Leo E. Brown, Director Public Relations,
American Medical Association.

A report on Legislation. Introduction-Percy
Hopkins, M.D. Mr. C. Joseph Stetler, Director,
Law Department American Medical Association.

A report on Recruitment.

Walter C. Bornemeier, M. D., Chairman, Ad-
visory Committee, Illinois State Medical Society.

PRESIDENTS' REPORTS

The Presidents will report under the State
Chairman, according to Subject Matter. Delegate
Handbook to give detailed account of reports.

QUESTION BOX

Open discussion on Auxiliary procedures
..... Mrs. James McDonnough, Chairman
Panel: Mrs. E. M. Egan, Mrs. Robert E. Dun-
levy, Mrs. Lee Hamm.

WEDNESDAY

Adjournment

LUNCHEON

Bal Taberin 1:00 PM
Chairman
Introduction of Program Mrs. William Blender, Jr.
Woman's Auxiliary to the
Peoria County Medical Society
Co-Chairman Mrs. M. T. Gorsuch
Woman's Auxiliary to the
Peoria County Medical Society
Wednesday Evening
6:00 PM Hospitality Hour

GRAND BALLROOM

SHERMAN HOTEL

7:00 PM THE ANNUAL DINNER
in honor of

Lester S. Reavley, M. D.
and the Past Presidents

Members of the Woman's Auxiliary to the
Illinois State Medical Society are cordially invited
to be present for the Annual Dinner.

Committee for the President
MRS. HARLAN ENGLISH
MRS. JOSEPH LUNDHOLM
MRS. JEROME J. BURKE

All County Presidents
Mrs. Alfred Pagano,
Chairman, Ticket Sales.

Tickets to the Annual Dinner will be sold
only through the Woman's Auxiliary to the Illi-
nois State Medical Society.

THIRD DELEGATE SESSION

George Bernard Shaw Room

May 22, 1958 9:00 AM
Report of Courtesy & Resolutions Committee—
Mrs. James P. Simonds

Final Report of Credentials and Registration
Committee

Presentation of the Budget for 1958-59, Mrs.
S. M. Hubbard, Finance Chairman

Reference Committee Reports:

Mrs. Gregory Carey, Chairman

Report of Officers & Directors

..... Mrs. William Somerville

Report of Councilors Mrs. Carl E. Sibilsky

Report of Standing Committee Chairmen

..... Mrs. Henry Christiansen

AWARDS

PRESENTATIONS

American Medical Education Fund

..... Mrs. Burtis E. Montgomery

Benevolence Mrs. Richard E. Westland

BULLETIN Mrs. Jerome J. Burke

Today's Health Mrs. Henry Christiansen

REPORTS OF COUNCILORS

Moderator Mrs. Fred C. Endres

Report of the Nominating Committee

..... Mrs. Warren W. Young

Election of Officers

Election of Delegates to the WAAMA

New Business

Convention Announcements

INSTALLATION LUNCHEON

SHERATON-BLACKSTONE HOTEL

Crystal Ballroom 1:00 PM

Honoring

Past Presidents of the Woman's Auxiliary
to the Illinois State Medical Society
and

Mrs. Nicholas G. Chester .. Mrs. Fred C. Endres

Retiring President Incoming President

Installation of Officers .. Mrs. Carl E. Sibilsky

Luncheon Chairman . Mrs. John Malcolm Tindal

Co-Chairmen Mrs. Roland A. Kowal

Mrs. Robert C. Romano

Post Convention

Board Meeting Room 107, Hotel Sherman 4:00
PM

Mrs. Fred C. Endres, Presiding

Reservations for good tables for—

The Pink Rose Tea, Tuesday, May 20,

The Anniversary Luncheon, Wednesday, May 21, and

The Installation Luncheon, Thursday, May 22,

from

Mrs. Alfred Pagano

241 Keystone

River Forest, Illinois

FO 9-6058



Insurance and Professional Liability

WHEN a doctor renders professional service to a patient, he assumes the entire responsibility for his acts or omissions and incurs liability therefor. This is personal and individual. Unfortunately, it is inescapable. To protect himself against this liability and possible personal financial damage, the alert physician buys what is termed malpractice insurance. Now, it is well known that malpractice charges against physicians have increased in many sections of our country, notably in New York and California. The concern over this problem has awakened the physician to study his own malpractice insurance program.

What is malpractice insurance? At the beginning of the twentieth century when malpractice insurance in the United States originated, decisions for damages against doctors hinged solely on the question of injury. Insurance had no legal effect on the determination of a doctor's professional liability. In fact, when attempts were made to inject the question of insurance into the trial of a malpractice suit, such testimony would be overruled. When the question of insurance was brought into the trial, the higher courts would often reverse an unfavorable decision against the doctor, stating that insurance should not be brought into the picture.

At that time, insurance against malpractice was merely a contract between the doctor and the insurance company. Should a doctor be convicted of malpractice, the insurance company paid him for any loss suffered, up to the amount

specified in his contract. There was no relationship between the insurance company and the trial proceedings; and no relationship between the insurance company and the complaining patient.

But, as we proceed in observing malpractice claims and various trial situations, there is no question but that the physician's insurance enters the picture. Somehow, the patient's lawyer always finds out about this. In one way or another, this fact, that the physician has insurance, gets into the picture.

In fact, the courts in most states now hold that the question of insurance may be used in the trial. This is not good, since the greater the insurance coverage the more interest the plaintiff has in recovering damages. This extra zeal often leads to such trouble, that one wonders whether the possession of a large policy really does protect the individual physician. Many cases may be cited where the amount of the insurance policy had a direct relationship to the financial aspects of the verdict.

In recent times a new form of malpractice insurance has come into being. This is what is known as "group malpractice insurance." An insurance company offers this type of protection to the members of a medical organization such as the county, state, or specialty society. By insuring the entire group or a huge proportion of that group, the insurance company is able to offer a lower premium and greater coverage than

an insurance company which offers an individual policy.

The arguments for group malpractice insurance are based on the principles of greater financial protection and a lower premium rate.

Many group policies have the added feature of requesting that the members of the group will provide expert testimony and their cooperation in trial situations.

This policy of group insurance tends to place the medical organization in a position where it is joining with the physician in standing trial. On the surface this sounds fine, but from a practical standpoint it may become a great deterrent. It gives the impression that physicians are banding together against all plaintiffs. It also may create the impression that the medical organization is in the insurance business.

When a doctor is charged by a patient with an alleged act or omission that has caused injury, the burden of proof rests upon the patient (the plaintiff). To provide such proof the patient must secure some other doctor to testify in support of his charges. In some instances the injury may speak for itself, (*res ipsa loquitur*). Physicians tend to shy away from appearing in malpractice suits against another physician. At first, such action would appear to be sound, but on the other hand, lack of a physician as a witness may force the court to form judgment on a

medical matter without proper testimony. Erroneous actions are almost certain to follow.

Since the matter of negligence is one of opinion between the patient and the physician, the entire matter should be presented to the court in an individual fashion. Insurance should never be allowed to enter into the problem of such a suit.

The solution to this problem does not appear to be that of greater financial coverage. It does not appear to be affected beneficially by group insurance. The solution of what type insurance and how much insurance against malpractice, must be satisfied at the individual level.

It would appear that the insurance company has to provide more than merely a set financial coverage and a low premium. The insurance company should keep the physician informed on trends in malpractice suits and what the physician can do to avoid the same. The insurance company must place itself in a position to give legal and financial advice to the insured physician. When obtaining malpractice insurance the physician must investigate his own special situation, his insurance company, and the protection he will receive. Before signing the contract he should govern himself by the age old principle of *caveat emptor*, (let the buyer beware).

J. R. W.



Smallpox not licked

The year 1957 was a bad one for smallpox with about 120,000 cases reported (of which 70 per cent were in Asia) compared with 85,000 in 1956. The world has seen worse outbreaks with many more casualties but the disease has not lost its ability to travel and to attack unsuspecting persons who are not well protected by vaccination. Z. Deutschman. *World Health*, Jan.-Feb. 1958.

Gerontological meeting

The Gerontological Society, Inc., will hold its 11th annual scientific meeting in Philadelphia, November 6-8. Scientific and commercial exhibits will be presented. One meeting will be open to the public.

Co-chairmen are Dr. Warren Andrew, Bowman Gray School of Medicine, Winston-Salem, N.C., and Dr. Joseph T. Freeman, 1530 Locust St., Philadelphia 2.

THE P. R. PAGE

John A. Mirt



Grievance committees spread

More than two thirds of all the county medical societies in the country and all of the state and territorial associations now have grievance committees, according to the *Journal of the AMA* (April 5, 1958). Between 5,000 and 10,000 physicians are serving on these committees to judge the complaints of patients "in the twin light of public interest and professional service."

The majority of complaints against physicians are due not to incompetence or greed but to misunderstandings which could have been dispelled quickly if there had been an opportunity to determine the cause in frank discussion, *JAMA* said, adding:

"So many complaints have been caused by a misunderstanding of the basis for a physician's fee that grievance committees spend a good deal of time emphasizing the importance of discussing costs before, and itemizing bills after, medical service."

Most committees do not mete out punishment when they find a complaint justified. When disciplinary action is needed, the case is usually referred to the appropriate judicial body of the association.

Most of the committees are composed of physicians only, but some include laymen—lawyers, ministers, and businessmen. Inclusion of laymen is still in the experimental stage, according to the AMA Council on Medical Service, but this plan, it is believed, may serve to strengthen community trust in the impartial attitude of the committee.

JAMA points out that the grievance committee cannot succeed unless the public knows of its existence and understands how to use it. It adds that the committee is "here to stay as an integral part of our profession. In the years ahead only technique may need refinement."

A report just compiled by the Grievance Committee of the Illinois State Medical Society shows that Illinois has been particularly fortunate in the adjustment of complaints. In the last two years, not a single case has been referred to the state level.

A report for 1957 from 58 county societies (some are too small to have a committee) showed that in only 14 of these were there any complaints registered. Four reported one case each, four had two cases, three had three cases and two had four cases. Only one county handled more than four grievances, and in that instance the total was less than in 1956.

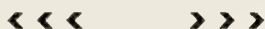
Most of the complaints involved alleged overcharges. In many instances, the fees were found to be justified but in those where the charges were regarded as too high the physician was asked to reach an agreement with the patient. This usually was done.

The best evidence of the success of the grievance committee handling complaints at the county level in Illinois is the record of Cook County. Only two cases had to be referred to the County Society's Committee to Consider and Investigate Informal Charges. Most of the other complaints were adjusted in conference, or the

situation explained to the satisfaction of the patient.

It also is encouraging that the number of physicians involved is fewer than the total cases coming to the attention of grievance committees.

One county had three cases, all against one physician, and he subsequently moved. Many of the allegations of overcharges or unsatisfactory service involved non-member physicians, over whom the committees had no jurisdiction.



Liver disease and hormones

Of more immediate interest is the possibility that certain clinical manifestations of chronic liver disease may have an endocrine basis. Patients with portal cirrhosis, especially when it is associated with alcoholism, frequently exhibit characteristic skin changes — spider nevi, palmar erythema, and curious white spots on the buttocks — which are seen also in pregnant women. High levels of estrogens are found in pregnancy and these hormones dilate the endometrial arterioles, which have a similar structure to the spider nevus. The liver is known to inactivate estrogens by conjugation with glucuronides, and attempts have been made to detect impaired powers of inactivation in liver disease. These have not always been successful, probably because of the inadequacy of present analytic techniques but high levels of estrogens in the urine have been reported, and the ability to metabolize injected estradiol is impaired in some patients with cirrhosis. Nevertheless, it is not possible to correlate the skin changes with levels of estrogen and certain observations are difficult to explain on the assumption of such an association. While spider nevi can be pro-

duced by the administration of female sex hormones, they are not seen in patients with carcinoma of the prostate receiving large doses of stilbestrol. In addition, it is difficult to see how a purely hormonal mechanism could account for the well known predilection of spider nevi for the upper half of the body. Apart from the skin changes there are a number of inconstant features of chronic liver disease that can be due only to hormonal imbalance. Men occasionally develop gynecomastia as well as testicular and prostatic atrophy, while amenorrhea is not uncommon in women. Loss of libido, infertility, and changes in the distribution of body hair occur in both sexes. *Editorial. Brit. M.J. Feb. 1, 1958.*



Every young man should aim at independence and should prepare himself for a vocation; above all, he should so manage his life that the steps of his progress are taken without improper aids; that he calls no one master, that he does not win or deserve the reputation of being a tool of others, and that if called to public service he may assume its duties with the satisfaction of knowing that he is free to rise to the height of his opportunity. — Charles Evans Hughes

CORRESPONDENCE



AMA committee issues statement on polio shots

Dr. Julian P. Price, chairman of the AMA Committee on Poliomyelitis, has issued the following statement:

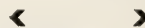
"Fourth shots are not considered necessary at this time. This was the concensus of Surgeon General Burney's polio advisory committee in Washington, March 21. Representatives of the AMA, the American Academy of Pediatrics, the National Foundation for Infantile Paralysis, public health departments, and others agreed that the present three dose schedule provides ample protection for the time being. Individual physicians may decide to issue fourth shots when local outbreaks occur or when a patient is traveling to a place where polio incidence is high. In such cases, the fourth shot need not be given sooner than a year after the third shot. The decision to administer an additional shot, the committee felt, should be made by the individual physician.

"The schedule for a new Advertising Council polio promotion drive is included with this letter. Materials mentioned in the schedule are being sent directly to newspapers and radio and TV stations to be run at their good will. If you are planning a local inoculation drive or a continuing educational program this spring, a call on the local editor or station program director will help insure their use of the Advertising Council materials. These people are usually happy to donate time and space to public service advertis-

ing if they are aware of local interest and support.

"Last year, many medical societies found that group inoculations—as one phase of local programs—helped immunize whole communities quickly, efficiently and thoroughly. By using this technique many societies finished up the job in a matter of days. Group clinics in almost every case boosted private office inoculations, earned excellent cooperation from volunteer agencies and quickly put the local polio situation in the realm of routine vaccinations.

"Public emotion has run high on the polio inoculation problem, irritating some doctors to the point of exasperation. In spite of this feeling, the medical profession has assumed the leadership in the great majority of inoculation campaigns across the country. Many doctors write that they are enthusiastically backing up the polio drive. Let's keep in mind one thing: as long as it is in our power to protect our patients from a disease—in this case polio—it is our duty to see that they get that protection. There are currently 48.5 million Americans who still need to start their Salk series."



American Diabetes board

Dr. Ford K. Hick of Chicago has been reappointed to the American Diabetes Association board of governors for Northern Illinois, and Dr. Thomas D. Masters of Springfield for Southern Illinois. The terms are for three years.

Law covering reporting of eye defects explained

In order that members of the Illinois State Medical Society may co-operate with the Illinois Department of Public Welfare in carrying out provisions of Senate Bill No. 548, passed by the 70th General Assembly, this explanation of the legislation is offered by Dr. Otto L. Bettag, director of the department.

The bill was introduced at the request of the Illinois Federation of the Blind, a group of blind persons who have organized for the purpose of advancing the general welfare of the blind in Illinois.

The law provides that major visual limitations of patients are to be reported to the Illinois Department of Public Welfare so that immediate steps may be taken to give patients counsel and guidance in overcoming or adjusting to their handicap. Under the law, a major visual limitation is defined as: central visual acuity of 20/70 Snellen notation or less in the better eye with correcting lenses, a peripheral field loss in which the visual field efficiency is reduced to 30 degrees or less in the better eye, or any other ocular condition which constitutes a comparable or greater loss of vision.

When the prognosis is poor or the visual limitation stable, the licensed individual is required to make a report to the Department of Public Welfare if the patient consents to the release of the information about his eye condition. These reports shall be made within 90 days after the case has been diagnosed and/or treated. The reporting program becomes effective July 1, 1958.

When reports are received, the department will inform patients of available services and training designed to help them adjust to personal and economic difficulties often imposed by visual limitations.

At the request of Dr. Bettag, the Council of the Illinois State Medical Society appointed an advisory committee on major visual disturbance to aid in the implementation and application of the legislation. This committee consists of Dr. G. Henry Mundt, Chicago; Dr. Walter Stevenson, Jr., Quincy; and Dr. Leo P. A. Sweeney, Chicago.

A simple reporting form has been prepared. It is so designed that the physician will have

for his file the signed consent of the patient authorizing the release of information to the Department of Public Welfare. A supply will be mailed to all Illinois physicians in the near future.

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Clinics for crippled children listed for June

Nineteen clinics for Illinois' physically handicapped children have been scheduled for June by the University of Illinois, Division of Services for Crippled Children. The Division will count 14 general clinics providing diagnostic orthopedic, pediatric, speech, and hearing examination along with medical social and nursing service. There will be 1 special clinic for children with cardiac conditions, 2 for children with rheumatic fever, and 2 for cerebral palsied children.

Clinics are held by the Division in co-operation with local medical and health organizations, both public and private. Clinicians are selected among private physicians who are certified Board members. Any private physician may refer to or bring to a convenient clinic any child or children for whom he may want examination or may want to receive consultative services.

June 4 — Carmi, Carmi Township Hospital

June 4 — Hinsdale, Hinsdale Sanitarium

June 4 — Rock Island (Cerebral Palsy), Foss Home, 3808 8th Avenue

June 4 — Salem, Masonic Temple

June 6 — Chicago Heights (Cardiac), St. James Hospital

June 10 — East St. Louis, St. Mary's Hospital

June 10 — Peoria, Children's Hospital (St. Francis)

June 11 — Alton (Rheumatic Fever), Alton Memorial Hospital

June 12 — Springfield, St. John's Hospital

June 13 — Evanston, St. Francis Hospital

June 17 — Belleville, St. Elizabeth's Hospital

June 18 — Chicago Heights (General), St. James Hospital

June 19 — Elmhurst, Memorial Hospital of DuPage Co.

June 19 — Rockford, St. Anthony's Hospital

June 24 — Effingham (Rheumatic Fever), St. Anthony's Hospital

June 24 — Peoria, Children's Hospital, (St. Francis)

June 25 — Elgin, Sherman Hospital
June 25 — Springfield (Cerebral Palsy), Memorial Hospital
June 26 — Bloomington A.M. (General), P.M. (Cerebral Palsy), St. Joseph's Hospital

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WMA meeting in June

The annual meeting of the United States Committee membership of the World Medical Association will be held at the Palace Hotel, San Francisco, June 24. Discussion topics are welcomed.

Dr. Austin Smith of Chicago, editor of the Journal of the AMA, has been elected chairman of the board of directors of the World Medical Association, United States Committee.

Dr. Walter C. Bornemeier of Chicago has been elected to the board, and Dr. George F. Lull of Chicago, secretary and assistant to the president of the AMA, has been re-elected.

Further information may be had by writing to Dr. Louis H. Bauer, secretary-treasurer, World Medical Association, 10 Columbus Circle, New York 19.

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New law requires X-ray apparatus be registered

Dr. Roland R. Cross, director of the Illinois Department of Public Health, called attention to the fact that many physicians have not complied with the provisions of the Radiation Installation Registration Law which went into effect January 1.

Under that law, all X-ray equipment and radioactive substances used for therapeutic and diagnostic purposes must be registered. This is the first step in determining the possible hazards of radiation exposures.

Registration forms may be obtained from the Illinois Department of Public Health, Bureau of Radiological Health, State Office Building, Springfield.

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San Francisco golf tournament

The American Medical Golfing Association is holding its annual golf tournament in conjunction with the AMA Convention June 23, 1958 at the beautiful Olympic Lakeside Golf and Country Club, San Francisco, California. This will be a whole day of rest and relaxation with golf, luncheon, banquet, and a prize for every-

one. We have left no stone unturned to assure you the very best. Tee off time 8 a.m. to 2 p.m. We cordially invite all golfing doctors to attend. Handicaps scratch to 30 in flights.

For information, contact James J. Leary, M.D. Secretary, 450 Sutter Street, San Francisco, California.

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Hawaii Medical Association invites Illinois physicians

The Hawaii Medical Association has extended an invitation to Illinois physicians attending the annual meeting of the AMA in San Francisco in June to come to Hawaii for the 1958 Summer Medical Conference, July 1-3.

The meeting will be held in the Hawaiian Village Hotel. The scientific sessions will consist of three breakfast panels and an afternoon clinic on virology and rheumatoid diseases. Among the speakers will be Drs. F. C. Robbins, Ephraim Engleman, and Ernest Jawetz.

Further information may be had from Mr. Lee McCaslin, executive secretary, Hawaii Medical Association, 510 South Beretania Street, Honolulu 13, Hawaii.

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Passano award to be given Rockefeller researcher

Dr. George W. Corner, of the Rockefeller Institute for Medical Research, will be given the annual Passano Foundation award of \$5,000. The presentation will be made June 25 during the annual meeting of the AMA in San Francisco.

Dr. Gunnar Gundersen, incoming president of the AMA, will speak on "The Contribution of Fundamental Research to Clinical Medicine." Dr. Corner's contribution to science will be detailed by Dr. Herbert M. Evans, a former award winner.

Dr. Corner has been carrying on continuing research that has produced, among other things, a better understanding of mammalian anatomy and physiology, with particular emphasis on human reproduction.

The Passano Foundation, formed in 1943 and financed by the Williams & Wilkins Company, publishers of medical and scientific books, encourages medical science and research, particularly that having a clinical application.

Minnesota seminar on UN

The Minnesota United Nations Association will hold its 9th seminar on the World Health Organization in Minneapolis, May 26-June 4, simultaneously with the 11th World Health Assembly.

Speakers will be officials from WHO regional offices or medical researchers qualified to report on newest developments in their fields. The number of active participants will be limited to 40 but there will be seats for 200 auditor visitors. The seminar will be held in the auditorium of the Lutheran Brotherhood Building.

Applications should be addressed to the Committee on General Arrangements, 2808 West River Road, Minneapolis 6.

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Allergists to meet in Paris

The 3rd International Congress of Allergology, sponsored by the International Association of Allergology, will be held in Paris, October 19-26. Dr. Samuel M. Feinberg, Chicago, is president.

The program will include symposia on asthma, emphysema, antibodies, recent clinical advances, biochemical aspects, auto-immune reactions, atopic dermatitis, and socio-economic aspects. There will be short sectional papers and round table luncheon conferences.

For registration and information write to Dr. B. N. Halpern, 197 Boulevard St. Germain, Paris VII, France.

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International symposium on status of tuberculosis

A three day international symposium on tuberculosis as a public danger will be held in Philadelphia, November 20-22, under the auspices of the Deborah Tuberculosis Sanatorium and Hospital of Browns Mills, N.J.

Chest disease specialists from all parts of the world have been invited to sit as a panel following introduction of papers on individual aspects. Among the topics to be discussed will be epidemiology, mortality and morbidity changes, case finding programs, bacteriological aspects, prophylaxis, surgical aspects, chemotherapy, and drug resistance.

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Heart association to meet

A program emphasizing the practical applica-

tion of findings made through cardiovascular research is being planned for the 31st annual scientific sessions of the American Heart Association in San Francisco, October 24-26.

Applications for the presentation of papers may be obtained from Dr. F. J. Lewy, assistant medical director, American Heart Association, 44 East 23rd St., New York 10. Abstracts must be submitted before June 13.

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Chicagoan named president of U.S. Section, I.C.S.

Dr. Edward L. Compere of Chicago, chairman of the department of orthopedic surgery, Northwestern University Medical School, was elected president of the United States Section, International College of Surgeons. Dr. Harry E. Bacon of Philadelphia was elected president-elect, and Dr. Neal Owens of New Orleans, first vice president. Other Chicagoans elected are: Dr. Francis L. Lederer, president; Karl A. Meyer, secretary; and Oscar B. Nugent, treasurer.

President-elect of the International College of Surgeons is Prof. Dr. Raffaele Paolucci di Valmaggione, head of the surgical clinic, University of Rome, and Italian hero of both world wars; Dr. Henry W. Meyerding of the Mayo Clinic, Rochester, Minn., is president.

The United States Section announced four regional meetings: New York State Surgical Division, Concord Hotel, Kiamesha Lake, N.Y., May 25-29; Eastern regional, Equinox House, Manchester, Vt., July 1-5; Alabama Surgical Division, Medical College of Alabama, Birmingham, October 30-31; Mid-Atlantic regional, Homestead Spa, Hot Springs, Va., November 17-18. Information may be obtained from Dr. Ross T. McIntire, executive director, International College of Surgeons, 1516 Lake Shore Drive, Chicago 10.

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O. & G. Board examination

Application for certification, new and reopened, part I, and requests for re-examination, part II, are being accepted by the American Board of Obstetrics and Gynecology. Deadline is September 1. A bulletin outlining requirements may be obtained by writing to Dr. Robert L. Faulkner, 2105 Adelbert Road, Cleveland 6.

AT THE EDITOR'S DESK



COSMIC RADIATION. The Air Force has an obvious interest in the genetic effects of cosmic radiation and, in an endeavor to study the problem more thoroughly it is sending test tubes via balloons containing a bread mold (*Neurospora crassa*) 20 miles into the air. In this way one hundred million fungi can be exposed to the same intensity of radiation at one time. One mutation in a million cells can be detected. The other test tubes remaining on the ground will serve as controls.

CANDY AND CAVITIES. An industrial survey found that candy sales are making a comeback after a 15 year low in 1954 of an average of 16.5 pounds per person. For 1956, the figure was 17.4 pounds while figures available for 1957 indicate an additional rise. Dentists are not too happy about the announcement. "This is good news for the sugar and candy producers, but not so good for people with teeth," says an editorial in the *Journal of the American Dental Association*. They hope the sugar industry will foster research into a means for offsetting the harmful effects of high carbohydrate consumption on teeth.

PTERYGIUM. The latest treatment of pterygium is a combination of surgery and strontium-90 radiation. A group of New York physicians was able to cure 160 of 166 patients with this method.

ORGANIZED DRUG SCREENING. More than 20,000 synthetic chemical compounds and 30,000

antibiotic culture filtrates have been screened by the Cancer Chemotherapy National Service Center at Bethesda. These products were tested against three types of mouse tumors in accordance with standard procedures set by the Center. At a conference sponsored jointly by the Center and the New York Academy of Sciences, Dr. R. L. Noble, of the University of Western Ontario, reported an offbeat study. Many Jamaicans use periwinkle (*Vinca rosea*), both the white and pink flowered, for diabetes. Dr. Nobel was unable to show that periwinkle tea lowered blood sugar in animals, but injections of the extract produced fatal agranulocytosis in laboratory animals. The effects resembled those elicited by anti-leukemia remedies. With this in mind, he employed the crude extract against mammary cancer in mice and found that it "possessed some definite carcinostatic activity. . ." Perhaps we can find an analogy in this to the common foxglove (*Digitalis purpurea*) which was a folk remedy long before it was recognized by Withering.

BACK TO WORK. Animals and athletes return to work more rapidly after major surgery than the average patient does. According to Dr. Mark W. Allam, dean of the University of Pennsylvania School of Veterinary Medicine, greyhounds return to racing competition two weeks after major surgery and race horses, in four to seven weeks. Dairy cows may continue to give milk at a high level after undergoing major operations. Greyhounds are racing again at speeds up to 35

miles an hour two weeks following hysterectomy. Another participant at the recent Surgical Convalescence conference, Dr. N. Henry Moss, instructor in surgery at the University of Pennsylvania School of Medicine, cited several specific cases of early return to work among members of the Philadelphia Eagles football team and young men in the Air Force and Navy. Most patients take from seven to 60 days to recuperate after removal of the appendix, and an average of 49 days following hysterectomy. Industrial workers are known to take off three months after herniorrhaphy. Incentive plays a major role and more conferences of this nature should be encouraged. Convalescent periods need not be routine.

MONKEY BUSINESS. Today's mail included also a letter from Harbans Lal Malhotra & Sons Private Ltd. of Calcutta, India. They wanted us to know that they are "authorized to export Rhesus monkeys from India" and are interested in contacting buyers who are in a position to import these monkeys for research work and the production of medicinal preparations. They are not interested in paying for this free advertising, but your editors agreed that the project is worthwhile, considering the growing need for these animals in medical research.

NEW

The addition of a sterile, disposable, insulin syringe to its line of plastic Steri-Syringes was recently announced by General Medical Supply Corporation of Decatur, Georgia. Admiral Corporation also has a complete line of sterile disposable syringes, ranging in size from 1 cc. to 20 cc. Potential use of these items is in the neighborhood of two and one-half billion a year in the United States alone. This is big business.

Still another tranquilizer is reported — Quiaquin (Merrell). Given to a group of 30 women mental patients, 73 per cent made satisfactory social adjustments.

A new leaflet for the public, "What We Know about Diet and Heart Disease," summarizes what is known on the subject. Copies are available from the American Heart Association, 44

East 23rd Street, New York 10, N.Y., or from local heart associations.

A newsletter for physicians who want to know more about forensic medicine is now available. It is called "The Doctor and the Law," and further information about its publication may be obtained by writing to Callaghan and Company, 6141 North Cicero Avenue, Chicago 30, Illinois.

Conoid lenses are magnifying lenses made of crown glass and range in power from 15 to 100 diopters. They fit standard metal or plastic frames. According to Dr. Bernard C. Gettes, they provide "larger and clearer field than ordinary spherical lenses of similar power."

T.L.C., a new medicated body rub and skin lotion in a convenient, squeezable plastic dispenser has been introduced to the hospital and medical trade by Meinecke and Company, Inc., New York City. This product contains silicone and hexachlorophene and is a greaseless, stainless emollient. It is said to relieve bedsores, promote healing of infections, minimize bacterial population on skin, and counteract itching caused by dry skin.

Choriocarcinoma has been suppressed successfully with amethopterin (Methotrexate — Lederle). Studies were conducted on 15 women at the National Institutes of Health Clinical Center. The malignancy was suppressed completely in five and almost completely in five others. Three patients are still under treatment and two died during the early phases of the experiment.

The resistant staphylococcus that plagues hospitals and institutions has created a challenge. Everyone wants to find a drug that will eliminate the "critter." The situation is a result of modern antibiotic therapy and the micro-organism bows temporarily to any new product that appears on the market. But it usually comes back, more resistant than ever. Kanamycin (Bristol) is the latest. It was reported to be successful in bringing to a head an epidemic in which 16 infants died from illness caused by resistant staph strains. The product originated in Japan and is not yet on the market.

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NEWS of the STATE



COOK

NEW DIRECTOR. Dr. George E. Wakerlin, formerly professor and head of the physiology department, University of Illinois College of Medicine, was appointed medical director of the American Heart Association, effective April 1. In his new position, Dr. Wakerlin will be responsible for planning and directing the medical and scientific programs of the American Heart Association.

CONVENTION. Highlighting the two-day convention of the Illinois Medical Assistants Association here last month at the Palmer House was a physicians' panel discussing topics such as "The Emotional Patient," "Office Surgery," "Preparing Patients for Lab and X-Ray," and "Office Management." Dr. Lester S. Reavley, Illinois State Medical Society president, presented Illinois' "Medical Assistant of the Year" at the annual dinner of the organization. Dr. Raleigh C. Oldfield, Illinois State Medical Society president-elect, discussed "The Medical Assistant and Malpractice" at the luncheon, when new officers were installed. Units of the Illinois Medical Assistants Association have been established recently in Danville-Paris, Peoria, Champaign-Urbana, Pekin, and Decatur. Dr. Carl E. Clark of Sycamore, Dr. Newton DuPuy of Quincy, and Dr. Arkell Vaughn and Dr. Caesar Portes of Chicago, are Illinois State Medical Society advisers to the group.

SERVICE AWARD. Dr. Louis B. Newman, chief of the physical medicine and rehabilitation

service, Veterans Administration Research Hospital, and professor of physical medicine at Northwestern University Medical School, was presented with the "civil servant of the year" award by the Federal Personnel Council and Regional Council of Federal Agencies. He was selected from among 70,000 civil service employees in the Chicago area.

RADIOACTIVE STUDIES. Northwestern University Medical School has received a grant of \$11,500 from the Atomic Energy Commission as part of the commission's program to assist universities in equipping their laboratories for training in nuclear technology as applied to the life sciences. These funds will be used to purchase radioisotope equipment for laboratory instruction in the department of biochemistry. This will enable medical students to gain experience in handling radioactive materials, to carry out experiments on the metabolism of radioactive iodine in rats, and to study the metabolism of radiocarbon labeled compounds in tissues.

LECTURES IN ITALY. Dr. Edwin F. Hirsch, president-elect Chicago Medical Society and member of the editorial board of the Illinois Medical Journal, spoke March 17 at the University of Pavia, one of the oldest in Italy, on "Carcinoma of the Lung." On March 18, he spoke at the University of Milan on "An Analysis of the Causal Factors of Atherosclerosis."

Dr. Jack Cowen was invited to present a paper entitled "Pool Gonioscopy, Technique and Visualization of the Anterior Chamber of the Eye" before the Ophthalmological Society of Rome on May 9. This subject dealt with some of the aspects in the diagnosis of glaucoma. Dr. Cowen recently demonstrated this technique in a course before the annual sessions of the American Academy of Ophthalmology.

MEETINGS. At the regular monthly meeting of the Chicago Neurological Society in April "Glioma of the Right Limbic Lobe Associated with Psychomotor Epilepsy" was presented by Dr. Percival Bailey; and the Leo Kaplan Memorial Lecture, "Recent Advances in the Study of Living Nervous Tissue," was presented by Dr. C. M. Pomerat.

The D. J. Davis Memorial Lecture was presented April 16, by Dr. Ilza Veith, associate professor of the history of medicine, University of Chicago. Her topic was "Oriental Medicine and its Concepts of the Soul."

At the April meeting of the Chicago Society of Internal Medicine, the program and its participants were: "Experiments on the Virus Etiology of Leukemia" by Dr. Steven O. Schwartz; "Cardiac Involvement in Progressive Muscular Dystrophy" by Dr. A. I. Gimble, and "Serum Isocitric Dehydrogenase Activity with Particular Reference to Liver Disease" by Drs. R. L. Sterkel, Jean A. Spencer, S. K. Wolfson, Jr., and H. G. Williams-Ashman.

Dr. Richard A. Perritt was moderator on a panel, "Eye Study Club: Procedures in Surgical Ophthalmology," at the Los Angeles meeting of the International College of Surgeons in March.

During the month of April, the Health Division of the Welfare Council of Metropolitan Chicago offered a comprehensive discussion series on community health needs. Underlying the discussions was the basic issue of how all our citizens could benefit from the application of what we know about the prevention and care of disease.

The Chicago Pediatric Society had as its April program, "Diabetes Mellitus Observations in the One to Four Year Age Group," by Dr. John Boehm, Children's Memorial Hospital; "Hypophosphatasia," Dr. William F. Hogan, University of Illinois Research and Educational Hospitals; "An Unusual Outbreak of Diarrhea with

Dehydration in Infants," Dr. Morad Jacobson, Michael Reese Hospital, and the "Blood-Brain Barrier for Bilirubin during Early Infancy," Dr. Maridee K. Nasralla, Cook County Hospital.

EDITOR. Barry J. Anson, Robert Laughlin Rea professor of anatomy and chairman of the department, Northwestern University Medical School, has been named editor-in-chief of Morris' "Human Anatomy." Now in its 12th edition, the book is one of the world's outstanding textbooks on anatomy; and with Dr. Anson's appointment, it will be known as Morris-Anson's "Human Anatomy."

FULTON

ILLUSTRATED LECTURE. At the Fulton County Medical Society March meeting, Dr. George J. Dickison, Peoria, spoke on the "Differential Diagnosis in Dermatology" and illustrated his talk with colored slides.

KNOX

IOWA SPEAKER. Adolph L. Sahs, M.D., professor of neurology, State University of Iowa College of Medicine, Iowa City, addressed the Knox County Medical Society, April 17, at the Galesburg Club in Galesburg on "Vertigo."

LA SALLE

HONORED. Dr. Arlington Ailes, director of the Hygienic Institute, was presented a 50 year pin and certificate by the La Salle County Medical Society in March. Another pin was awarded to Dr. Arthur N. McCord of Streator, who was unable to be present to accept it.

SANGAMON

REGULAR MEETING. At the April meeting of the Sangamon County Medical Society, Dr. W. Stanley Hartroft, department of pathology chairman, Washington University, spoke on "Recent Studies in Atherosclerosis."

VERMILLION

TALK. Dr. William Meszaros, Department of Radiology, Cook County Hospital, recently spoke before the Danville VA Hospital staff on the subject, "Roentgen Diagnoses of Diseases of the Skull and Brain."

GENERAL

DIRECTS NASAL SURGERY COURSE. Dr. Maurice H. Cottle, professor of otolaryngology, Chicago Medical School, directed an intensive post-graduate course in "Reconstructive Surgery of

the Nasal Septum" at the University of Cincinnati College of Medicine and Cincinnati General Hospital, April 12-19.

The course was under the sponsorship of the university's department of otolaryngology, of which Dr. Henry Goodyear is the head, and with the co-operation of the American Rhinologic Society. Dr. Ralph H. Riggs of Shreveport, past president of the society, was executive director. Among the participants in the course were Dr. Roland M. Loring, Chicago, and Dr. James S. Walker, Urbana.

GOLDEN ANNIVERSARY. May 13, 1958 was the 50th anniversary of the Navy's Nurse Corp.

MEETING. The American Public Health Association will hold its 86th annual meeting in St. Louis, October 27 to 31. Preliminary plans, announced by Dr. Berwyn F. Mattison, executive secretary of the association, includes 14 specialized sections: dental health, engineering, and sanitation, epidemiology, food and nutrition, health officers, laboratory, maternal and child health, medical care, mental health, occupational health, public health education, public health nursing, school health, and statistics. There will be scientific and technical exhibits as well as scientific sessions and workshops. Highlights will include presentation of the annual Albert Lasker Awards of the American Public Health Association and the Sedgwick Memorial Medal, highest awards in public health. Further information is available from the American Public Health Association, 1790 Broadway, New York 19, N.Y.

POSTGRADUATE CONFERENCE. Three conferences were arranged for April by the Illinois State Medical Society's Committee on Postgraduate Medical Education and Scientific Service.

Speakers from the Cook County Graduate School of Medicine presented a program for the Stephenson County Medical Society and surrounding counties at Freeport, April 2. They were Drs. Anthony J. Nicosia, Bruce D. Lee, and Walter J. Reich, all of Chicago, who spoke in the afternoon. Dr. J. H. Maloney, Rockford, Postgraduate Committee member for the first district, presided. The evening speakers were Dr. Heyworth N. Sanford, Chicago, and Dr. Carl E. Clark, Sycamore, first district

councilor. Dr. Eugene L. Vickery, Lena, president of the Stephenson County Medical Society, presided.

Speakers from the University of Chicago School of Medicine spoke at a meeting in Moline, April 8, for the Rock Island County Medical Society and surrounding counties. They were Drs. Donald E. Cassels, John Van Prohaska, Clifford W. Gurney, and A. Kappas, all of Chicago, speaking on the afternoon program presided over by Dr. N. C. Barwasser, Moline, Postgraduate Committee member for the fourth district. The evening speakers were Dr. H. Close Hesseltine, Chicago, chairman of the Council of the Illinois State Medical Society, and Dr. Charles P. Blair, Monmouth, councilor for the fourth district. Dr. Elliott Parker, Moline, president of the Rock Island County Medical Society, presided.

A group from Loyola University Stritch School of Medicine presented a program on the care of automobile accident victims at Mattoon, April 17, for the Coles-Cumberland County Medical Society and surrounding counties. They were Drs. George W. Ferenzi, John J. Brosnan, Robert L. Schmitz, Joseph T. Coyle, James J. Duffy, and Frank Pirruccello, all of Chicago, who spoke in the afternoon.

Dr. Harlan English, Danville, eighth district councilor, and Mr. Walter L. Oblinger, Springfield, associate counsel for the Society, were the evening speakers. Dr. Edward X. Link, Mattoon, president of the Coles-Cumberland County Medical Society, presided.

LECTURES ARRANGED BY THE ILLINOIS STATE MEDICAL SOCIETY:

ROBERT C. MUEHRCKE, instructor in medicine, University of Illinois College of Medicine, addressed the Englewood Branch of the Chicago Medical Society, April 1, on "Hypertension."

JOHN R. WOLFE, clinical assistant professor of obstetrics and gynecology, University of Illinois College of Medicine, addressed the Kankakee County Medical Society in Kankakee, April 15, on "What's New in Obstetrics and Gynecology?"

JAMES T. CHAMNESS, St. Louis, assistant in clinical surgery, Washington University School of Medicine, addressed a joint meeting of the

Montgomery and Macoupin County Medical Societies in Litchfield, April 16, on "Some Special Aspects of Plastic Surgery."

HOWARD W. SCHNEIDER, associate in orthopedic surgery, Northwestern University Medical School, addressed a joint meeting of the Whiteside and Lee County Medical Societies in Sterling, April 17, on a phase of Orthopedic Surgery.

JACKSON P. BIRGE, Regional Health Officer, Rock Island, addressed the McDonough County Medical Society in Macomb, April 25, on "Polio-like Syndrome, Aseptic Meningitis and Orphan Viruses."

LOUIS C. JOHNSTON, JR., clinical assistant in medicine, University of Illinois College of Medicine, addressed a group of wives of medical students (Auxiliary to the Student AMA), May 14, on "Why Be Fat?"

JOHN T. REYNOLDS, associate professor of surgery, University of Illinois College of Medicine, addressed a joint meeting of the Lee and Whiteside County Medical Societies in Dixon, May 15, on "Intestinal Obstruction."

DEATHS

PAUL H. ANTHONY*, Kankakee, who graduated at the Chicago College of Medicine and Surgery in 1912, died March 21, aged 67. He had practiced medicine in Grundy and Iroquois Counties before going to Kankakee 20 years ago.

JOHN G. BARKER*, Chicago, who graduated at Jenner Medical College in 1914, died March 24, aged 70. He was physician and surgeon for the Chicago Board of Education and had been assigned to the Chicago Parental School for the last 38 years.

JAMES K. BARTHOLOMEW, retired, Chicago, who graduated at the University of Michigan Department of Medicine and Surgery in 1887, died in Miami, Florida, December 28, aged 95, of bronchopneumonia.

ROBERT H. BELL*, Carlinville, who graduated at Washington University School of Medicine, St. Louis, in 1906, died December 25, aged 76, of cirrhosis of the liver. He was formerly associated with the Illinois Department of Public Health.

JOHN DANIEL CLARIDGE*, Chicago, who graduated at Northwestern University Medical School in 1918, died March 20, aged 66. He was attending surgeon for the Chicago White

Sox baseball team and the Chicago Cardinals football team, and a member of the staff of the Mercy Hospital.

DAVID B. FREEMAN*, Moline, who graduated at the State University of Iowa College of Medicine in 1910, died recently, aged 72.

LOUIS B. GOLDMAN*, Chicago, who graduated at the Chicago Medical School, 1935, and at the Universite de Lausanne Faculte de Medecine, Switzerland in 1939, died March 24, aged 50. He was a senior member of the staff of the South Chicago Community Hospital.

AUSTIN L. GREEN*, Milford, who graduated at Northwestern University Medical School in 1907, died in January, aged 89.

THOMAS J. KASTER*, retired, Chicago, who graduated at Rush Medical College in 1901, died March 8, aged 84. He had served as chief surgeon for the Sante Fe Railroad for 35 years up to the time of his retirement in 1952.

THOMAS S. S. KERR, Chicago, who graduated at the College of Medicine and Surgery, Chicago, in 1900, died January 11, aged 90 of acute myocardial failure and chronic infectious cystitis.

PETER PAUL LEDEN*, Chicago, who graduated at Schlesische—Friedrich—Wilhelms—Universitat Medizinische Fakultat, Breslau, Prussia, in 1913, died March 31, aged 71. He was assistant clinical professor of otorhinolaryngology at Stritch School of Medicine of Loyola University, and a member of the staff at St. Francis Hospital, Evanston.

EDWARD W. MARQUART*, Elmhurst, who graduated at Rush Medical College in 1901, died March 7, aged 82. He was a founder and organizer of the Du Page Memorial Hospital and he helped organize the West Suburban Hospital in Oak Park.

ELEANORE MABEL H. OTIS*, retired, Moline, who graduated at the American Medical Missionary College, Battle Creek, Michigan, and Chicago in 1903, died December 27, aged 87, of cerebral thrombosis. She had been associated with the Lutheran and Moline Public Hospitals, and St. Anthony Hospital in Rock Island.

JOHN ADAM RITZE, retired, Midlothian, who graduated at Northwestern University Medical School in 1911, died January 1, aged 73, of coronary occlusion.

JOHN L. ROCK*, Oglesby, who graduated at

*Indicates member of the Illinois State Medical Society.

the University of Illinois College of Medicine in 1916, died March 18, aged 67. He was past president of the LaSalle County Medical Society, president of the First National Bank of Oglesby since it was organized in 1941, and was founder of the Rotary Club and the American Legion Post in Oglesby.

HELEN FADORA STEFANSKI, Chicago, who graduated at Loyola University School of Medicine in 1916, died January 2, aged 68, of acute coronary thrombosis, hypertension, and arteriosclerosis.

RALPH L. TALLMAN*, Chicago, who graduated at Loyola University School of Medicine in 1928, died March 20, aged 59. He was a member of the Board of Governors of South Shore Hospital.

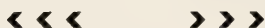
HENRY BASCOM THOMAS*, retired, Chicago, who graduated at Northwestern University Medical School in 1903, died March 25, aged 80. He was emeritus professor of orthopedic

surgery at the University of Illinois College of Medicine, formerly senior orthopedic surgeon at St. Luke's Hospital and the Illinois Surgical Institute for Children and the Home for Destitute Crippled Children. Still operated as charitable institutions to treat crippled children are two clinics he founded on Chicago's south side.

WALTER VERITY, retired, Chicago, who graduated at Rush Medical College in 1910, died April 1, aged 82. He was a former member of the staff of Woodlawn Hospital and the Municipal Tuberculosis Sanitarium.

JOHN MARINELLI VITULLO, Chicago, who graduated at the College of Physicians and Surgeons of Chicago, School of Medicine of the University of Illinois, in 1910, died January 10, aged 72, of coronary occlusion. For many years he served as assistant city physician.

*Indicates member of the Illinois State Medical Society.



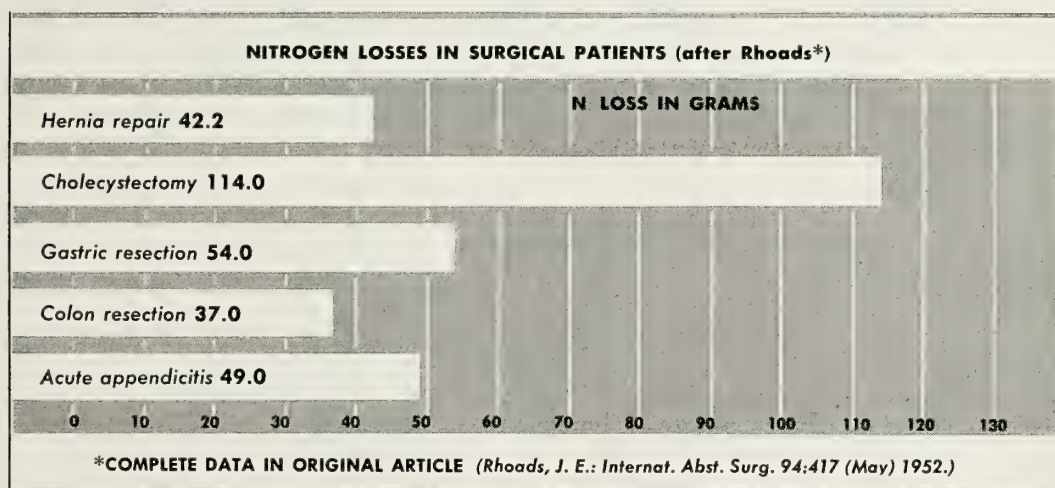
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cu. mm. Subsequently, two of the children had convulsions in connection with fever, and in one a troublesome grand mal epilepsy developed. In the child with epilepsy there was no family history of convulsive disorders, no signs of cerebral lesions, and no abnormal electroencephalographic alteration. Moller suggested that exanthem subitum does not cause convulsions merely through fever but that a specific cerebral disturbance occurs at the same time. *Phillip E. Rothman, M.D. and Morris J. Naiditch, M.D. Nervous Complications of Exanthem Subitum. California Med. Jan. 1958.*

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SEARLE

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(Continued on page 54)



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BOOK REVIEWS



DISEASES OF THE NOSE, THROAT AND EAR. By Howard Charles Ballenger, M.D. \$17.50. Pp. 968. Lea and Febiger, Philadelphia, 1957.

It has been 50 years since the publication of the first edition of this text. Naturally, almost all medical men are familiar with some phase of this basic textbook. Extensive changes have been made since the 9th edition published 10 years ago, particularly in the chapters on allergy and diseases and surgery of the labyrinth. Throughout the text, new illustrations have been added and much old material withdrawn. It is still an excellent textbook for students and a handy reference book for the busy practitioner.

J. W. P.



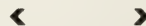
THE SPECIALTIES IN GENERAL PRACTICE. By Russell L. Cecil, M.D. and Howard E. Conn, M.D. \$16.00. Pp. 780. Saunders, Philadelphia, 1957.

This is unique in medical texts in that it is designed specifically for the general practitioner. The two editors, one of whom is a general practitioner (Dr. Conn), have employed the skill and specific knowledge of 15 contributors to present the problems and solutions of the specialties that men in general practice are most likely to encounter. They seem to have covered the fields wisely and well. In 14 chapters ranging from minor surgery to psychiatry, they have

included most of the problems encountered in general practice. The inclusion of certain material under specific categories and chapters is somewhat arbitrary but in general practical. For example, arthritis has been placed under orthopedic surgery. Some might feel this subject were better covered by medical consultation. However, this is of minor importance.

The index is complete and the drawings, photography, and illustrations are satisfactory. This second edition has improved in quality and quantity over the first edition, which appeared in 1951. The revisions are in keeping with the advances in knowledge and technique in medicine and surgery in the intervening years.

J. W. P.



THE HEALING OF WOUNDS. Edited by Martin B. Williamson, Ph.D., with 11 contributors. \$7.00. Pp. 202. Blakiston Division, McGraw-Hill, New York, 1957.

This work in on the biological level, involving tissue cells and parts of cells. It is extremely scientific and technical, yet enlightens the reader about the healing processes.

The current biochemical aspects of wound healing are emphasized. The work reports and describes most of the biochemical studies on wound healing undertaken since World War II.

(Continued on page 60)



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BOOK REVIEWS (Continued)

Each chapter is written by a different contributor and wound healing is related to the metabolism of proteins and amino acids, the role of the ground substance, vitamin C, hormonal influences on granulation tissue formation, collagen, and clinical aspects.

C. P. B.

THE TREATMENT OF BURNS. By Curtis P. Artz, M.D. and Eric Reiss, M.D. \$7.50. Pp. 250. Saunders, Philadelphia, 1957.

This would be a good text to keep in every emergency room or surgery. Adequate treatment of burns consists in the synthesis of many problems solved within the first few hours. Unless you have had considerable experience with the treatment of extensive burn cases, one or several essential initial steps may be forgotten or missed. Perhaps the greatest danger is to underestimate the potential seriousness of the specific burn.

This textbook is the outgrowth of the experiences of a special Research Unit of the Brooks Army Medical Center for the treatment and investigation of burns. This unit was started in 1949 and research work was carried out for seven years on more than 1,000 burn cases. No one method of treatment was evolved from these studies but certain fundamentals have been adhered to throughout. These involve a correct evaluation of the burn problem which includes the weight of the patient, the extent and degree of the burn, and a plan of fluid replacement with blood plasma and electrolytes. Provisions also must be made for combating infections, maintaining the airway, some form of cut down or canula on a large vessel, and a constant check on the electrolyte balance.

So many essential details in the long range treatment of severe burns are covered in this book, you should keep it handy for your next burn case.

J. W. P.

A new angle

The treatment of obesity is likely to become more successful the less the physician concerns himself with obesity and the more he concerns himself with the obese person and his problems in living. *Albert Stunkard, M.D. The Management of Obesity. New York J. Med. Jan. 1958.*

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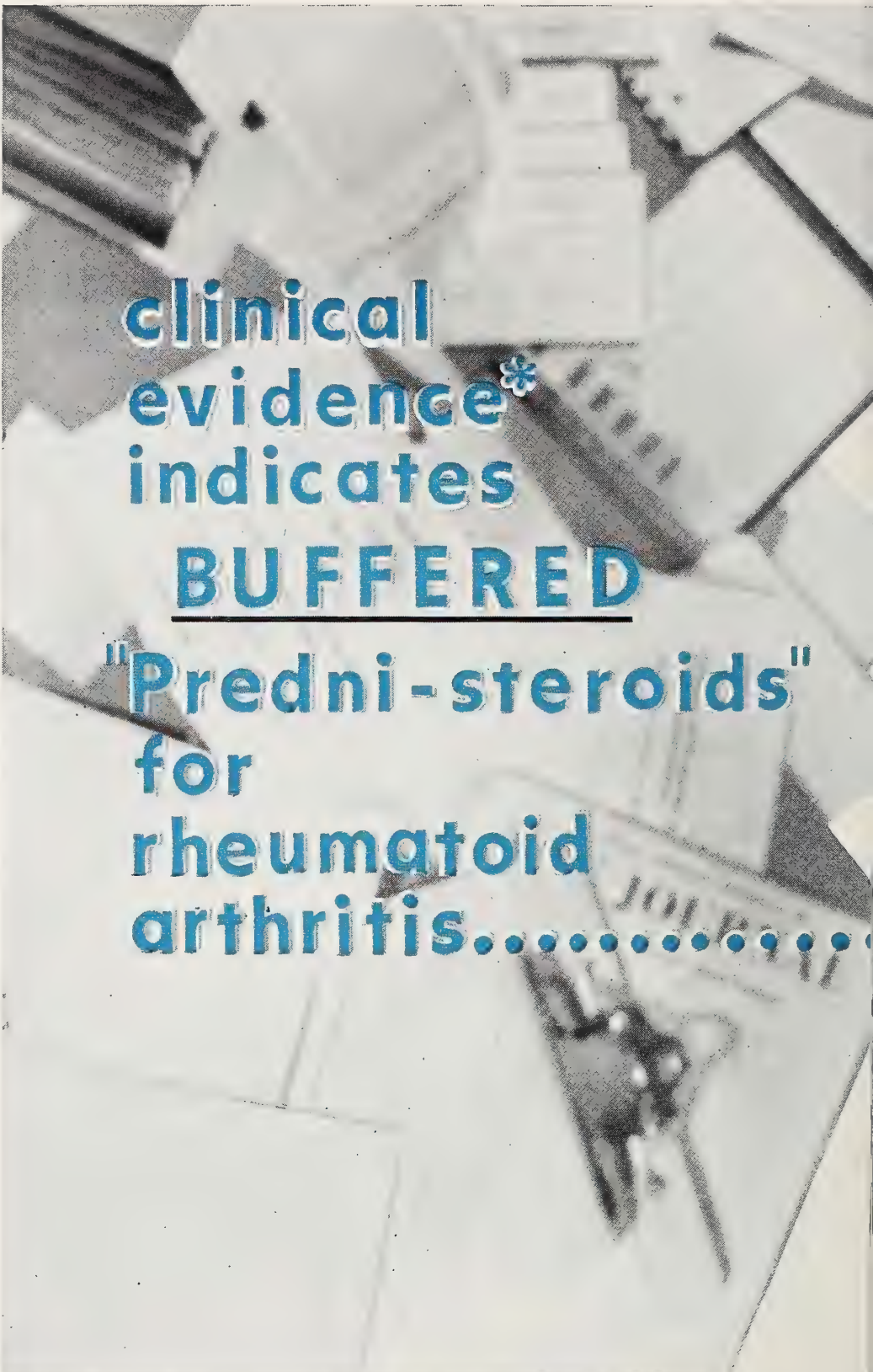
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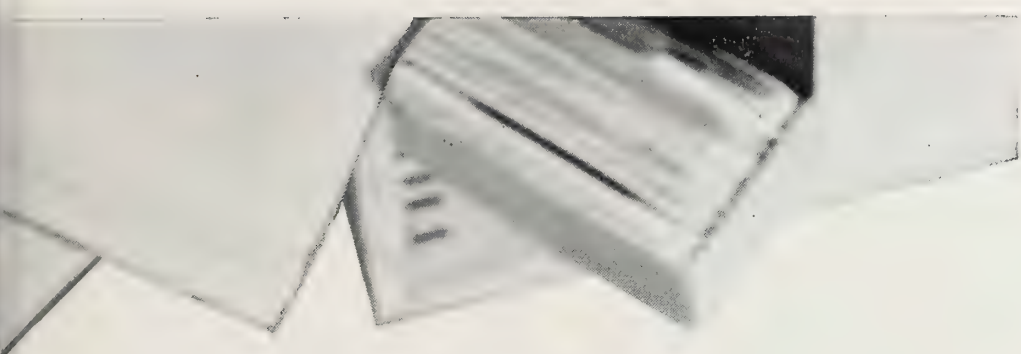
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*"It is our growing conviction that all patients receiving oral steroids should take each dose after food or with adequate buffering with aluminum or magnesium hydroxide preparations."—Sigler, J. W. and Ensign, D. C.: J. Kentucky State M. A. 54:771 (Sept.) 1956.

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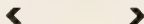
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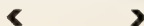
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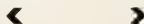
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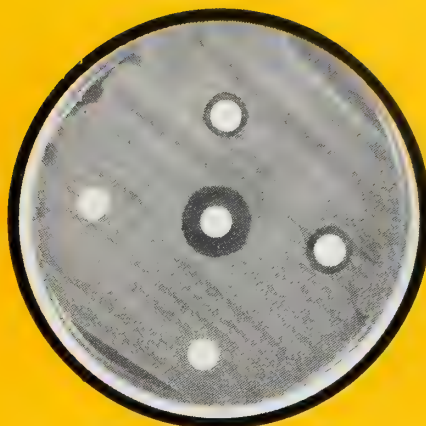
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The Month in Washington



Washington, D. C. — The Hill-Burton program for U.S. grants to states to help build hospitals and other health facilities has run a successful course for almost 12 years. It has never been cut back in scope, and once (in 1954) it was expanded to take in diagnostic-treatment centers, nursing homes, chronic disease hospitals, and rehabilitation centers.

On the overall, the U.S. puts up one-third of the money for a state's projects, but the state may give individual projects as much as two-thirds of their costs.

In the 12 years, 3,725 projects have been completed, are under construction or have been approved. They represent a total investment of about \$3 billion, just under one-third of it federal money. Included are 156,658 hospital beds, 4,542 nursing beds, and almost 1,000 other facilities, such as rehabilitation centers.

Congress, as it has several times in the past, now is being asked to renew the program, which no doubt it will do. Also, the Department of Health, Education, and Welfare and several organizations in the health fields have looked over the 12 years' experience, and want some changes made in the way the program is handled. None of them, however, wants to end it.

The American Medical Association, for example, is suggesting that diagnostic-treatment and public health centers be dropped from the program, and that the mandatory emphasis on rural communities also be eliminated. These and other AMA recommendations are the result of a 14-state survey by the association.

Also, the AMA joins with the Department of Health, Education, and Welfare in proposing that emphasis be placed on facilities for the chronically ill and nursing homes, and that states be given more freedom in shifting money among the various categories.

Both the AMA and the AHA want Congress to authorize loans for hospitals and nursing homes, with the AMA recommending that loan guarantees be offered to proprietary as well as nonprofit institutions.

Before Congress are a dozen or more other suggested changes. Several groups want the research fund raised from the present \$1.5 million a year to \$4 or \$5 million, and HEW would like to be able to advance money for planning when this action would hurry construction. HEW also, along with several Congressmen and state medical societies, would like to see the eligibility requirements eased so more nonprofit groups can build diagnostic-treatment centers. Another HEW proposal would recognize a rehabilitation center even if it did not furnish psychological, social and vocational evaluation services, as well as medical; now the center has to furnish all four services.

At this writing, indications are Congress will not allow a slip-up in extending the program, which is scheduled to expire June 30, 1959, even if it has to move along a simple extension bill, then try to work out agreement on all the suggested changes.

Regardless of what happens, Hill-Burton is

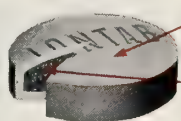
(Continued on page 30)

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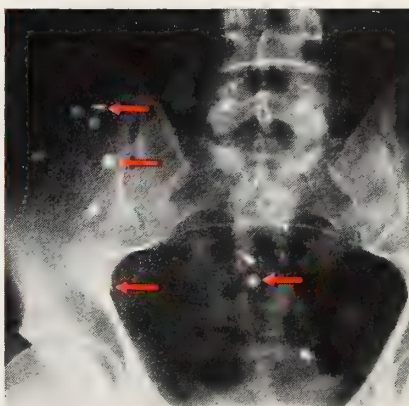
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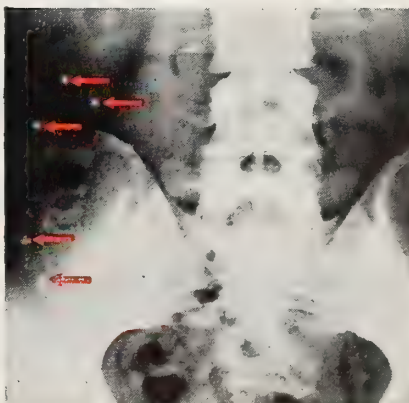
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WASHINGTON (Continued)

undergoing more friendly—but critical—examination than it has experienced since its birth in 1946.

NOTES

American Association of Medical Colleges estimates that the country's 85 medical schools will require \$275 million for rehabilitation and new construction in the next few years, not including money for research and hospital construction.

To learn how far our supplies could be stretched in event of nuclear attack, the Office of Defense Mobilization has asked Public Health Service to survey 700 wholesale drug houses, surgical supply firms and chain drug store warehouses for an inventory of their stocks.

American Medical Association, among other groups, is supporting legislation that would request President Eisenhower to call a 1960 White House Conference on the problems of the aged. However, HEW sees no need for the conference,

nor does it favor suggestions that a new bureau be set up to handle the problem, nor a commission created.

After conclusion of hearings, a House subcommittee has under consideration legislation for "bricks-and-mortar" U.S. grants to help medical and dental schools finance buildings and purchase of equipment; money could not be used for general operating expenses.

Dr. Thomas H. Alphin has resigned as director of AMA's Washington Office to become associate medical director of the Equitable Life Assurance Society at the group's main office in New York. Dr. William J. Kennard, deputy director, has been named acting director of the Washington Office.

VA is calling for bids on 12 construction projects estimated to cost a total of at least \$4.2 million. Locations include Murfreesboro, Tenn.; Tomah, Wis.; Columbia, S. C.; Bay Pines, Fla.; Newington, Conn.; Iowa City, Iowa; West Roxbury, Mass.; Rutland Heights, Mass.; Walla Walla, Wash.; Wood, Wis.; Wadsworth, Kan.

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The ILLINOIS Medical Journal



Official Journal of The Illinois State Medical Society

JUNE, 1958
VOL. 113. NO. 6

The Physician's "Silent Partner"

LESTER S. REAVLEY, M.D., STERLING

The art of healing is an ancient and honorable one. The physician enjoys a position of respect and trust, because of the intimate relationships and responsibilities he has in promoting and preserving the well-being of his fellows. Many of the basic desires of mankind are related to the help and guidance which he brings to life. He is related to the hopes and fears of men and women.

All honorable toil has its place in the economy of life; but the work of a physician requires specific knowledge and insight, special skills, distinctive services and activities, and consecrated imagination in the fulfillment of his obligations. The classic definition of a professional man stated that the "learned professions" were: law, medicine, and theology. These three recognized the demand for insight, perspective, and a desire to be of service to others. Professional men were recognized as the custodians of the well being of the community, and of their fellows.

We live in a day when the rights of men come into frequent discussion: the right to work, the right to be happy, the right to possess, the right to think, the right to be healthy. The significance of one's occupation in the total economy of life may vary; but certainly we belong to a

profession where the need for our services persists, and even grows, with every changing scene of life.

Thus, the constitution of our society accurately states the purposes shall be to organize the entire medical profession in order that we may "extend medical knowledge and advance medical science, elevate the standards of medical education, (and) protect the public by education as to medical care." This is our profession, and these are our responsibilities.

But even the most gifted, and best trained, does not pretend to know the full scope of our research, and understanding, and skills. The composite of our knowledge and skills are baffling. Sometimes we feel as though we are in an ocean of knowledge, too vast to comprehend or master. Our fraternity includes many who enjoy special gifts, amazing skills, and abundant knowledge. We are all debtors to the specific achievements of the few, whether they be specialists in research, techniques, analysis. We are always on the growing edge of discovery where new procedures may be discovered for our use and for the benefit of those whom we serve. Part of the thrilling excitement of being a physician lies in this facility to grow, and to master a perplexity which has beset us, and others in the past.

We are the custodians and dispensers of a vast repository of knowledge, of dependable facts which guide us in our work. We operate in a

President's Address, 118th annual meeting of the Illinois State Medical Society in Chicago, May 21, 1958.

changing world where each day produces new facts and knowledge and skill which are at our command. What I have been saying represents common knowledge; it is accepted and adapted by all.

I want to direct your thinking to consideration of some further assets and blessings which we possess. It is easy for us to become so involved in techniques, instruments, analyses, records, and tissue that some of the wonder and excitement of life and its realities may be lost; or at least become obscure.

The most persistent factor with which we deal is life itself. Our methods may change, our techniques may differ, our theories may be modified or discarded because of new knowledge, but the life factor persists. Every physician, in every phase of his work, proceeds upon the dependable factor of the resilience and persistence of life. This is basic to our work. It is something over which we have no control.

Each one here could relate experiences revealing the fact that the patient lived, in spite of all the factors to the contrary, and not because of what we had done. Every factor of knowledge and diagnosis at our command might predict the termination of life, and then for reasons unseen and unknown, life reasserts itself and hangs on, and occasionally a recovery is achieved which could not be predicted.

For the purpose of my discussion, let me call this persistent quality of life upon which we depend, the gift of God. Life is given to us by powers beyond and above our capacity to analyze and comprehend. We simply recognize it, accept it, and seek to co-operate in its development and preservation.

Perhaps no other profession, has such frequent reminders that there are powers of life which transcend man's capacity to control. We know very little about its source: when or how it comes. We can observe and measure the physiological and material concepts relating to life, but its terminus is as baffling as its beginning.

The ancients sought to distinguish the difference between life and death by calling a live body "flesh," and a dead body "meat." It is not difficult to recognize and register the differences between life and the absence of it, but the source, destiny, and other important aspects of life we must accept as a gift that comes, as something extra upon which we can, and do depend.

In our society we represent such varied forms of religious heritage, experience, and profession that we may fail to take proper account of the invisible power which stands beside us in our work. There may be occasions when we feel quite inadequate to bring full understanding and proper treatment to the ills which present themselves to us. However, we all recognize the fact that we are proceeding in a framework of dependable law and order which comes to us by creative processes over which we exercise no control.

Any man whose practice extends over a long period of time and circumstances will come face to face with problems and perplexities so baffling that he must admit to himself that his resources and strength are inadequate to do all that he might desire. A very considerable part of our work is personal and individual, and even confidential. Some are situations where consultation is not demanded or desired.

There are times when a man may feel an honest loneliness that reveals a bit of inadequacy and even incompleteness. Here is where we may claim the benefits of the "Silent Partner" whose interest precedes and transcends our own.

I am speaking of the sense of comradeship we can possess in co-operation with the great Creative God under whose ordered plan we have opportunity to serve. And it would seem that a physician who denies himself the blessing and attachment which such an acknowledgment can bring is ignoring a benefit and resource which is of value to himself, and an indirect blessing to his patient.

Many and varied are the forms and expressions of this sense of being in co-operation with God. Some physicians follow a devout practice of calling upon God for help and guidance as each new emergency is faced in the hope that the training and skill he possesses may be most effectively employed. Others follow a practice of such quiet trust as to always feel that they are on errands of mercy and service and helpfulness, in the busy tasks of day or night. Some may indeed, follow routine practices that could be ridiculed as bordering on superstitious habits, because they are followed so faithfully. If the truth were known, more devotion in practice is manifest than any of us has admitted to others or to ourselves.

My simple suggestion is that we all need to

recognize this asset and use it in the faith and practice of our art, so that we will feel a participating partnership with God in His wise desire that all men should enjoy the abundance of a full and healthy life.

In the struggle of man for the abundant joys of life, we are on the side of God, and the patient, for the achievement of this desired goal. There are forces which attack life. These forces are usually catalogued under the general heading of being "Evil."

The body's good health is abused by dissipation; attacked by disease; impaired through accidents; distressed by hardships; jeopardized by all sorts of difficulties. In ways known and unknown, the mental and physical health of the people suffers attack.

Some infants are born healthy and whole in every way, and during the remainder of their life are pursued by ills of every kind and description. Some of these may be preventable, and some appear through causes over which no one seems to have proper control.

The point I seek to make is that the physician has the custodial responsibility to aid in preserving and promoting the good health which is everyone's heritage. And in this capacity, he is very near to being the inheritor of the gift for fullness of life. We believe God desires good things for all men.

Our work is not a job whose dimensions are measured in minutes, or so many hours per day, or how many stitches are taken, or how many prescriptions are written. He is to so relate himself to the patient and his need that the very best results possible may be achieved. It does not seem to me to be overstating the proposition to say that there is a parallelism between the work of God and the work of the physician. One can hardly imagine God laying down the creative process when the whistle for lunch was heard. If he did, some frightful distortions of creation would appear.

Every evidence we have of the life which sustains us, is that "goodness and mercy follows us all the days of our life." Likewise, the physician does not treat a patient as a customer who may purchase some of his service for a price. Rather, the patient comes under the guidance of his physician in order that the best results in good health may be realized, and this is a continuing process.

Once again the physician is in the business of life itself where partnership becomes an asset and a powerful ally. And sometimes the thing that we cannot do with our most skillful prescriptions and directions will be achieved in good time through the creative purposes which lie within the body itself. Whether we profess it or not, more times than we think, "we are laborers together with God."

The hypochondriac is well known to all of us, and we employ differing procedures to serve his difficulties. But, perhaps a more pernicious malady is the person that can easily be helped, but who is unwilling for one cause or another to admit it. For some this is a false pride: a feeling that to complain of a real illness is a sign of weakness.

Here for example an old man says: "My mother taught me that it was a sign of weakness to admit to illness." Most cases of this sort give evidence of a misplaced courage. The benefits which we administer to life are for the help and benefit of humanity. And the aid we are able to offer is often dependent upon the proper co-operation of the patient.

By the same line of reasoning, some physicians seem to assume that it is an evidence of inadequacy or weakness to admit or affirm that they are dependent upon the power and blessing of God as the "Silent Partner" of their healing ministry. But such faith in God often opens up the facets of usefulness by which our work is more fully realized.

Let me quote from an editorial in the March 1958 issue of the Minnesota Medical Journal: "We have become aware that more and more 'Organic illnesses' have roots in emotional causes All of us know individuals whose days are crammed with excitement, problems, decisions, with haste and hurry, uncertainty, and tension. Yet they seem serene, and they remain robust and well, carrying these burdens indefinitely Faith is the factor least measurable in man's total health, yet perhaps most crucial Man must have faith to live a full life and without faith life becomes meaningless. No physician has not witnessed the power of faith, and no physician can afford to ignore this tremendous aid in his therapy. We all want and need faith; it is part of the whole man, but often it

must be learned.”—Charles S. Houston, M.D.

I am not here suggesting that the physician shall conduct any sort of religious catechism; but he is affirming that faith and trust in God is not an exclusive possession of the clergy or the church. Perhaps faith in God should neither be prescribed nor scorned. But it needs to be recognized by all.

There are times when we have done the best we know, and the results achieved are not what we most desire. Every man has known the frustration of trying to bring help, without satisfactory results. Sometimes this brings us face to face with the most trying of the unsolved problems of life.

Certainly we need help, or assurance, or understanding. Under such conditions, some men break up; others become cynical and hard; for others the zest of happy practice passes.

Sometimes a man needs to feel that God knows he has done his best and it was not sufficient to achieve the desired results. It is the man of courage who then looks God in the face and affirms that he has done his best, with the certain knowledge that the “Higher Power” understands and sustains him for further service and usefulness. Such a faith and trust and partnership can save the physician from being the victim of the most evil temptations which beset our profession.

Many of the unanswered questions of our days of practice, will find new light and help, for those who are to follow in our honorable profession. But there will always be unconquered areas in the struggle of man to overcome disease and ignorance and irrationality.

And however enlightened and sophisticated the profession may be or become, its sense of partnership with all that has been, all that it

is, and all that it is to be will sustain him and direct him and make him most effective.

The most serious thoughts which possess us are those which relate us to our profession and its services to humanity. No man can pay the price of study, and accept the disciplines of life that leads to important professional achievement without having some serious thoughts within himself about the meanings and motives which relate him to his work.

You have honored me with the opportunity to speak of the serious business in which we are all engaged. It is a privilege which I cherish. But I could not accept this or other obligations in the feeling that I am adequate in my own strength. Rather, I proceed in the firm confidence and faith that I do not work alone toward the achievement of the worthwhile results that engage my time and energy.

So, what I say is not only a recognition of faith in an unfailing power and persistent purpose which impinges upon life, but also a recognition that none of us needs be alone as we face responsibilities in life. We can depend upon the sustaining power of our “Silent Partner.”

As I conclude, I want to read to you the first paragraph of the prayer of Maimonides, the medieval physician and philosopher, which says:

“I begin once more my daily work. Be Thou with me, Almighty Father of Mercy, in all my efforts to heal the sick. For without Thee, man is but a helpless creature. Grant that I may be filled with love for my art and for my fellow-men. May the thirst for gain and the desire for fame be far from my heart. For these are the enemies of Pity and the ministers of Hate. Grant that I may be able to devote myself, body and soul, to Thy children who suffer from pain.”

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Metastatic Carcinoma of the Testis Secondary to Adenocarcinoma of the Prostate

JAMES H. McDONALD, M.D., PAUL M. GONZALEZ, M.D. AND NORRIS J. HECKEL, M.D., CHICAGO

IT would seem, since only 23 such cases have been reported, that metastases to the testes secondary to adenocarcinoma of the prostate is a rare occurrence. However, during the last five years, we have seen two such cases.

Mr. R. D., #583293, a Negro male, age 68 years, was admitted to the Presbyterian Hospital November 6, 1955 because of pain in the upper and lower extremities, chest, and shoulder of three months' duration, and symptoms of prostatism. A clinical diagnosis of carcinoma of the prostate had been made one year previously and stilbesterol administered.

General physical examination revealed no abnormal findings. Rectal examination revealed the prostate to be grade 1½ enlarged, stony-hard, nodular, and fixed to adjacent tissues. The blood count was normal. Urinalysis revealed 1-2 red blood cells and 6-8 white blood cells per mm. The blood nonprotein-nitrogen was 26 mgm.%. The serum acid phosphatase was 8.1 Armstrong units, and the serum alkaline phosphatase was 35 Armstrong units. A skeletal X-ray survey revealed osteoblastic metastases to the ribs, pelvis, and the lumbar spine (Figure 1). The intravenous pyelogram was normal.

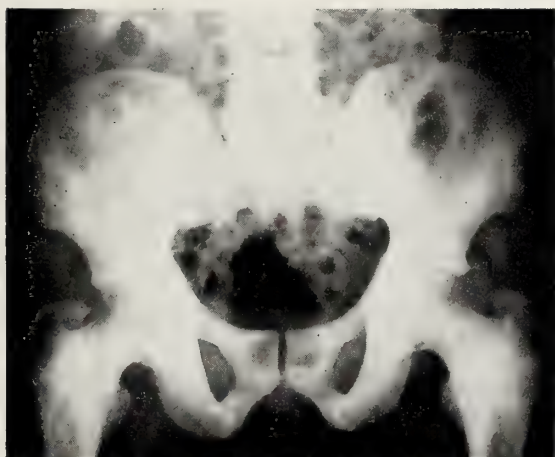


Figure 1. Case 1. X-ray of the pelvis and lower lumbar vertebrae showing osteoblastic metastases.

From the Departments of Urology and Pathology of the Presbyterian-St. Luke's Hospital of Chicago in affiliation with the University of Illinois College of Medicine, and the Ravenswood Hospital of Chicago.

Transurethral resection of the prostate and a bilateral subcapsular orchiectomy were performed. The patient was discharged on the seventh postoperative day. Microscopic examination of the prostate disclosed an extensive adenocarcinoma of the prostate with marked

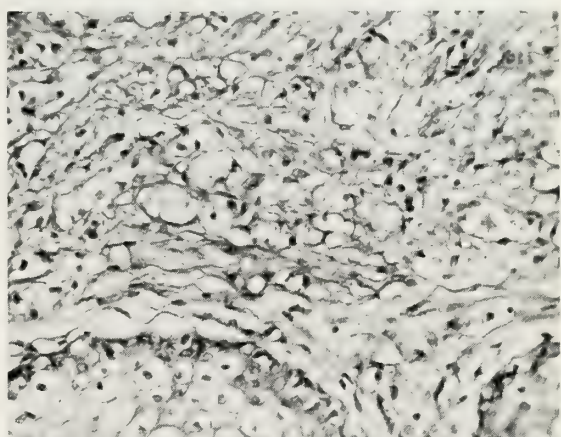


Figure 2. Case 1. Photomicrograph of the prostate showing adenocarcinoma with marked estrogen effect and squamous cell metaplasia.

evidence of estrogen therapy (Figure 2). Grossly, the testicular tissue appeared somewhat fibrotic. On microscopic study, there were nests of neoplastic cells in the interstitial tissue of one testis which appeared mature

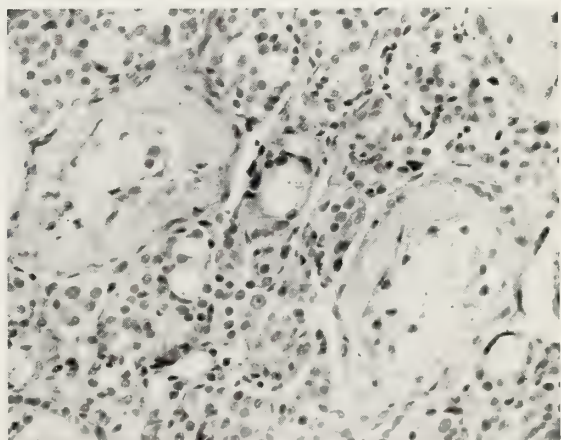


Figure 3. Case 1. Photomicrograph of metastatic lesion of the testis showing the formation of glandular structures in the interstitial tissues.



Figure 4. Case 2. X-ray of lumbar vertebrae showing osteolytic metastatic lesion in body of the 1st lumbar vertebra.

in type, forming occasional glandular structures, while some accumulations of tumor cells formed solid cords (Figure 3).

Diagnosis: Adenocarcinoma of the prostate with secondary metastasis to the testis.

Mr. S.B.T., #A-97514, a white male, age 49 years, was admitted to the Ravenswood Hospital August 14, 1951 because of pain in the thighs and buttocks of three weeks' duration, associated with progressive symptoms of prostatism.

General physical examination was negative. Rectal examination revealed grade 1 enlarged prostate that was stony-hard, nodular, and fixed to adjacent tissues. The blood count, serology, urinalysis, and blood non-protein-nitrogen tests were normal. X-ray of the lumbar spine revealed a metastatic osteolytic lesion of the 1st lumbar vertebra (Figure 4).

Cystoscopic examination revealed a fibrous contraction of the posterior urethra, and a transurethral resection of the prostate was performed. Five days later, following histological examination of the prostatic sections, a bilateral subcapsular orchiectomy was done. Microscopic examination of the prostate revealed an anaplastic adenocarcinoma of the prostate (Figure 5).

The tissue from the right testis contained a firm, gray-yellow nodule 0.5 cm. in diameter. Microscopic study of this area showed a metastatic tumor with growth in a sheet-like pattern in the interstitial tissues with occasional acinous arrangement suggesting origin in the prostate gland (Figure 6).

Diagnosis: Adenocarcinoma of the prostate with metastasis to the testis.

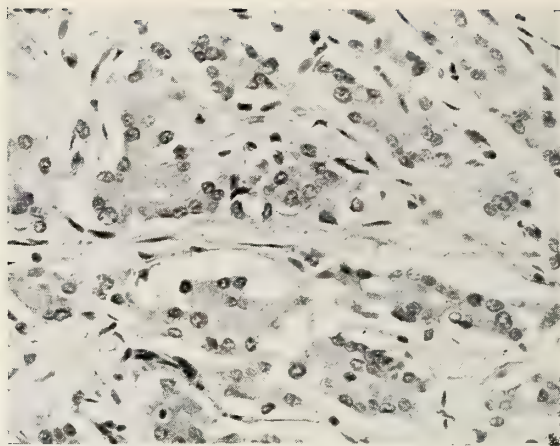


Figure 5. Case 2. Photomicrograph of the prostate showing undifferentiated anaplastic adenocarcinoma.

A review of the 23¹⁻¹⁰ reported cases shows three without histological confirmation. Baird and Hare³ made their diagnosis of carcinoma on rectal examination, as was the case in Potts⁴ report. Kay, Hennigar, and Hooper⁵ recorded one case in which diagnosis was made from aspirated prostatic tissue. This was positive on Papanicolaou stain for tumor and was similar to the adenocarcinoma seen in the testicular lesion. However, they felt this was only presumptive evidence of primary carcinoma of the prostate.

In a review of secondary carcinoma of the testes, Price and Mostofi⁶ (Armed Forces Institute of Pathology) found 12 instances in which the primary origin was in the prostate. In three, metastasis to the testis produced clinical mani-

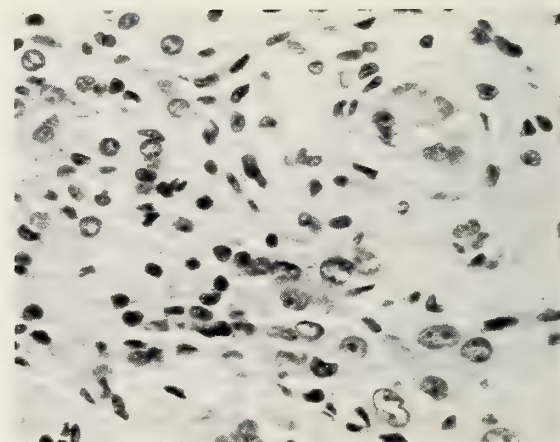


Figure 6. Case 2. Photograph of metastatic lesion of the testis showing sheet-like growth of undifferentiated adenocarcinoma with invasion by tumor cells of the hyalinized seminiferous tubules.

festations: and in two, it was the first indication of the disease.

Benson⁷ reported an instance of carcinoma of the prostate with metastases to the testis and to both breasts.

Howard, Hicks, and Scheldrup⁸ reported bilateral testicular metastases from carcinoma of the prostate and presented an excellent study of the various routes by which tumor cells may reach the testes from the prostate gland.

According to Willis,¹¹ metastatic lesions can reach the testes by three different routes: (1) retrograde extension by embolism in the spermatic vein, (2) retrograde lymphatic extension, and (3) arterial embolism. In six of the reported cases, the pathogenesis of the metastasis was attributed to arterial embolism. Bradham,⁹ in the absence of osseous or pulmonary metastases and the presence of tumor tissue in the veins of the testis and epididymis, believes extension in his case was by retrograde venous embolism. Kay, Hennigar, and Hooper suggest in one of their cases, the tumor might have descended by way of the ejaculatory duct with tumor cells found within the seminiferous tubules, rather than in the interstitial areas. The osseous metastases in each of our cases would indicate the possibility of arterial embolism as the route of extension, but retrograde lymphatic or venous extension cannot be excluded.

Elkin and Mueller¹⁰ noted one instance of metastasis to the testis in a review of 104 patients with carcinoma of the prostate who came to autopsy. While this is obviously not a common site of metastatic extension of prostatic carcinoma, this incidence would indicate that the

few cases recorded are not the true indication of the frequency of this lesion. In addition, examination of the testicular tissue removed as a therapeutic measure in carcinoma of the prostate, especially when the subcapsular technique is used, may not be as precise as in other pathological examinations.

SUMMARY

1. Two cases of metastatic adenocarcinoma of the testis secondary to carcinoma of the prostate are added to 23 similar cases previously reported.

2. Similar lesions may possibly be overlooked in the routine pathological study of surgical and autopsy material from patients with carcinoma of the prostate.

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Etiologic Factors in Diabetes Mellitus in Man

RACHMIEL LEVINE, M.D., DIRECTOR OF THE DEPARTMENT OF METABOLIC AND ENDOCRINE RESEARCH AND CHAIRMAN OF THE DEPARTMENT OF MEDICINE OF THE MICHAEL REESE HOSPITAL, CHICAGO

Dr. Adolph: Today's discussion complements a recent Department of Medicine Seminar on the "Objectives and Methods of Treatment of Diabetes Mellitus" in man. It is a pleasure to welcome back Doctor Rachmiel Levine, Director of the Department of Metabolic and Endocrine Research and Chairman of the Department of Medicine of Michael Reese Hospital in Chicago.

Dr. Rachmiel Levine: No conclusive answers are presently available to the problem of the etiology of diabetes mellitus in man. Although it has been recognized as a disease entity since antiquity, the pancreas was not incriminated until the middle of the 19th century. In 1869 Langerhans described the islet cell formations in the pancreas which bear his name. Von Mering and Minkowski in 1889 demonstrated that the syndrome of diabetes mellitus could be induced in dogs by surgical extirpation of the pancreas. The name *insuline* was suggested by deMeyer in 1909 for the still hypothetical secretion of the pancreas. The successful preparation of insulin in 1922 by Banting and Best, and its subsequent use in the correction of many of the abnormalities of diabetes mellitus, seemed to clear any doubts that diabetes was caused by insulin deficiency.

At the same time, observations in clinics and laboratories seemed to implicate glands of internal secretion other than the pancreas in the etiology of diabetes mellitus. In 1908 Borchardt reported that 40 per cent of acromegalic patients had diabetes; and in 1910 Porges described hypoglycemia in Addison's disease. It was first supposed that adrenalin deficiency was at fault in Addison's disease, but later the importance of the adrenal cortex in carbohydrate metabolism was recognized.

Houssay, during the years 1919-1925, working with toads, was able to produce diabetes by

pancreatectomy and then subjected these same animals to hypophysectomy. The original diabetes produced by pancreatectomy was found to be altered by removal of the pituitary in the following ways: 1) hypoglycemia occurred in the fasting state, 2) there was amelioration or elimination of ketosis, and 3) increased sensitivity to insulin was noted. This discovery marks the first general acceptance of the premise that diabetes mellitus was a syndrome resulting from a multiple hormonal imbalance—specifically that the pituitary produces diabetogenic factors and the pancreas, antidiabetogenic factors.

After Houssay's demonstration that hypophysectomy attenuates the severe diabetes resulting from total pancreatectomy in the toad and dog, similar changes were found following adrenalectomy in pancreatectomized cats and dogs. Clinical conditions exhibiting adrenal cortical hyperactivity [such as Cushing's syndrome] or adrenal cortical underactivity [such as Addison's disease] attest to the fact that the adrenals exert an influence on carbohydrate metabolism.

There is no conclusive evidence that glucagon is a normally occurring hormone of physiologic

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significance. It may possibly be produced by the alpha cells of the human pancreas. Exogenous glucagon must be administered in large amounts to exert an apparent diabetogenic effect. In small doses it behaves somewhat like epinephrine in that it favors the breakdown of liver glycogen into blood glucose.

The liver is not ordinarily considered an endocrine organ. Claude Bernard observed, however, that as cirrhosis became more severe, a coexistent diabetes was ameliorated. It is questionable, nonetheless, whether "hepatic diabetes" is an entity as such. The liver produces sugar from noncarbohydrate sources. If gluconeogenesis were controlled by circulating hormones to which the liver becomes unresponsive then "hepatic diabetes" could be envisioned. One other possible etiologic factor should be mentioned. Mirsky has described a hepatic proteolytic enzyme system capable of breaking down insulin. This enzyme has been called insulinase. If increased activity of insulinase were present in the liver, and the pancreas produced a normal amount of insulin, it is conceivable, that "liver diabetes" could result, due to insulin destruction in that organ.

The microscopic pathology of the pancreas in diabetic animals and man is variable and non-specific by the techniques available to us at this time. Although 40 per cent of acromegalic patients have altered glucose tolerance curves and 25 per cent of patients with Cushing's syndrome have altered glucose metabolism, these are relatively uncommon conditions, and the vast majority of the diabetic population does not exhibit any gross endocrine imbalance. There is no substantial evidence that glucagon is of etiologic significance in diabetes. Mirsky's studies show that liver biopsies taken at surgery from diabetics contain more insulinase than nondiabetic liver samples. Radioactive insulin studies, on the other hand, have not revealed any differences in insulin time-decay curves between diabetes and nondiabetics. Except for the small number of diabetic patients with Cushing's disease and acromegaly, at present the site of origin of diabetes mellitus appears to reside in the pancreas.

In the pancreas, the beta cells apparently assemble the proper amino acids into an insulin molecule; aggregates of molecules are stored and released in a manner analogous to release of thyroxine from the follicle. Normally, the

amount of insulin released is governed by the blood sugar level. This control is comparable to the control by calcium of hormone release by the parathyroids. At times certain proteins that migrate electrophoretically in the alpha and gamma globulin fractions, some of which apparently are antibodies, can be shown to bind or antagonize insulin, and indeed may render unresponsive to insulin, a diabetic in coma.

Etiologically, the seat of origin of diabetes may be in the beta cells or in the blood. Three factors may be involved in this process. First, there may be an absolute deficiency in the production of insulin, as seen in juvenile diabetes. Secondly, there may be a deficient release of insulin in response to physiologic stimuli—that is, the pancreas becomes less sensitive to the blood sugar level. This concept is reinforced by experimental work relating to the mode of action of the sulfonylureas, which suggests that these drugs render the beta cells more sensitive to elevated blood sugar levels in older obese diabetics. Finally, there may be binding and/or inactivation by globulins in the blood, which makes insulin unavailable. Insulin resistance has been arbitrarily defined as an insulin requirement of more than 200 units daily. Since a depancreatized person may require only 40 units daily, one could consider insulin resistance to begin at 40 units. Dragstedt found that dogs with 90 per cent of their pancreas removed required more insulin than dogs with total pancreatectomies. Whether a fourth factor—namely, insulinase—will prove to be etiologically important is not clear at this time.

Dr. Robert M. Kark, Professor of Medicine: Would you discuss the relationship of muscle to this problem? What is the factor in brewer's yeast that modifies the liver in carbohydrate metabolism?

Dr. Levine: During fasting, muscle and fat are deprived of sugar and preference is given the brain and heart. In fact, 65 per cent of available glucose during fasting is utilized by the brain and 25 per cent by the heart. It would seem to make good sense that the blood glucose levels regulate the pituitary secretion of diabetogenic factors. In the fasting state, the glycogen stores of the heart increase and in the presence of high blood glucose levels these stores decrease, probably in response to the amount of growth

hormone. Experiments performed in the late 1940's suggest that the liver is necessary for carbohydrate uptake by the peripheral tissues. There is apparently some factor in the liver that increases the tissue uptake and utilization.

Dr. Theodore B. Schwartz, Associate Professor of Medicine: Lack of production of insulin and lack of release should not produce different types of diabetes. What role does obesity play?

Dr. Levine: This is really an indirect question on the prediabetic state. There appears to be some relationship between diabetes, obesity, and large babies and other dysfunctions of pregnancy, particularly on the maternal side. A tempting speculation on obesity is that overproduction of insulin in the prediabetic leads to obesity and then exhaustion leads to frank diabetes. Since older diabetics frequently respond to sulfonylureas they must have some insulin producing capacity intact. A simple quantitative microanalytic method of measuring insulin is desperately needed. Some methods are now available that are sensitive to levels of 75 micro units of insulin activity. Their reliability as measures of insulin are still in question.

Dr. John H. Peters, Assistant in Medicine: How do you explain insulin resistance?

Dr. Levine: Insulin resistance sometimes depends simply on the route of administration of exogenous insulin. Intravenous administration may be effective when the subcutaneous route fails. The binding or antagonism to insulin by globulins appears to be an important factor in major resistance.

Dr. William R. Best, Assistant Professor of Medicine: Is early diabetes reversible?

Dr. Levine: I have seen only two cases that were presumably reversed.

Dr. George Gee Jackson, Associate Professor of Medicine: Would you discuss the genetic factors versus acquired factors in diabetes mellitus?

Dr. Levine: Prior to a few weeks ago I had more confidence in genetic factors than I do today. A constitutional tendency to diabetes mellitus has been thought to be inherited as a recessive trait, but the frequency of the disease in the general population is too high to be explained by this factor alone or on the basis of a normal rate of mutation. A recent paper from Germany analyzed rats whose parents had been made diabetic with alloxan. The findings were as follows: 1) there was increased fetal mortality, 2) the young rats of alloxan-treated parents showed abnormal glucose tolerance curves, and 3) at 4 to 6 months, several rats exhibited spontaneous hyperglycemia. In another study, reported from Japan, alloxan-treated rabbits were mated and each succeeding generation of offspring were similarly given alloxan. The second generation rabbits required less alloxan to become diabetic, and third and fourth generations exhibited spontaneous diabetes. If these surprising studies prove correct and are substantiated by other workers, they would strongly suggest that environmental factors modify genetic patterns involved in the production of diabetic states.

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The Management of Hypospadias

DAVID PRESMAN, M.D., CHICAGO

Hypospadias is one of the more common congenital anomalies involving the genito-urinary tract. It consists primarily of failure of development of the distal portion of the urethra so that the position of the urethral meatus is on the ventral surface of the penis or on the perineum. The ectopic urethral meatus may be at any point from the glans to the perineum near the rectum. The degree of hypospadias thus depends upon the site of the urethral meatus and may be classified into three general types:

1. *Glandular or Balanitic* is by far the most common. The urethral meatus is on the glans between the normal site and the corona. A shallow dimple usually is present at the normal site of the meatus and may have the appearance of a true urethra. However, on close examination this is seen to be merely a shallow pocket which has no connection with the urethra.

2. *Penile*. The urethral meatus is at some point along the body of the penis from the glans to the peno-scrotal junction. In most instances, the site is at the distal half of the body of the penis. Cases in which the meatus is just adjacent to the glans are physiologically similar to the glandular type and usually do not require correction. Peno-scrotal hypospadias is much less common and is technically difficult to repair. The ventral portion of the prepuce is absent in patients with penile or perineal hypospadias. The dorsal and lateral portions are fully formed but the ventral border of the glans is fused to the body of the penis, producing a ventral angulation or incurvation of glans and distal half of the penis.

3. *Perineal*. Fortunately, this type rarely occurs. When present, it usually is associated with other developmental anomalies of the genital system and presents a difficult problem in correction.

The proper management of hypospadias in-

cludes correction of two associated conditions which frequently are present; congenital stenosis of the urethral meatus and incurvation of the penis. Stenosis of the meatus is more likely to occur in the glandular type and in the milder grades of the penile type. Occasionally, it is severe enough to cause difficulty in urination and requires a simple meatotomy for correction. It should be remembered, however, that although a hypospadiac meatus is smaller than normal, it usually does not cause obstruction to the urinary outflow. Meatotomy is indicated only occasionally and should be reserved for the child with a severe stenosis, which results in a thin urinary stream and some difficulty in voiding.

Ventral incurvation of the penis, also termed chordee, is practically always present with the more advanced degrees of penile hypospadias and with perineal hypospadias. It is due to the absence of the ventral portion of the prepuce and to the presence of a band of thick, fibrous tissue in the midline on the ventral surface of the penis extending from the hypospadiac meatus to the glans. This causes a ventral incurvation which may interfere with the normal growth of the penis. The incurvation may be severe enough to prevent normal erection. If uncorrected, the chordee may interfere with the act of coitus and insemination when the individual reaches adult life.

The surgical repair of hypospadias is indicated only in cases in which the anomaly is severe enough to interfere either with normal micturition or with coitus and insemination. Therefore, the presence of a glandular or a penile hypospadias in which the meatus is just adjacent to the glans is not an indication for surgery. If the individual can urinate in a standing position without wetting himself and if there is little or no incurvation on erection so that normal coitus can be accomplished, surgical correction is not warranted. Indeed, any attempt to repair these mild cases may lead only to marked

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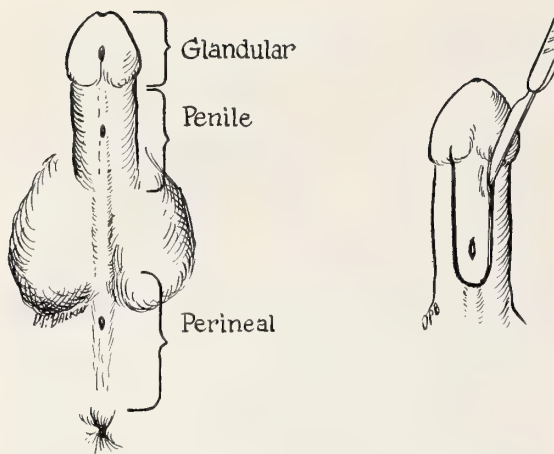


Figure 1. (Left) Diagrammatic representation of the three types of hypospadias based upon the site of the hypospadiac urethral meatus.

Figure 2. (Right) Formation of a strip of skin on the ventral surface of the penis from just below the hypospadiac meatus extending to the glans. This strip of skin will form the new urethra.

scarring and distortion without actually improving the situation.

Surgical repair should be performed for all cases of perineal hypospadias and for the penile type in which the meatus lies along the proximal three-quarters of the body of the penis. The aim of surgery is two-fold: Correction of the incurvation by straightening the penis and reconstruction of the urethra so that the meatus is at or adjacent to the glans. These procedures should be done in two separate stages.

Circumcision should never be done on the newborn or infant if a hypospadias is present since the prepuce will be utilized for the straightening operation. If ritual circumcision is to be performed, only a token amount of foreskin should be removed. It is essential, therefore, that the pediatrician or obstetrician routinely examine every newborn male for the presence of hypospadias. Preservation of the prepuce is the most important preliminary step in the repair of this deformity.

Correction of the incurvation is best performed at an early age, preferably when the child is 2 or 3 years old, to allow for normal development of the penis. The surgical technique is relatively simple and fairly well standardized. The essential requirement for a successful result is the complete removal of all the subcutaneous fibrous tissue on the ventral aspect of the penis between the hypospadiac meatus and

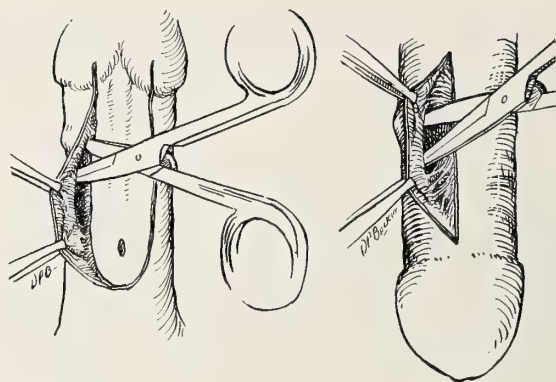


Figure 3. (Left) Each lateral skin flap is undermined starting on the ventral surface completely around to the dorsal surface of the penis.

Figure 4. (Right) Dorsal view of the penis showing the ventral relaxing incision in the skin and undermining of the lateral flap on one side so that it is completely freed from the underlying tissues. The opposite side is freed in the same manner.

the glans. This is a tedious and time consuming procedure, but unless all the fibrous tissue is dissected free, some degree of incurvation will recur.

With mild degrees of penile hypospadias, a transverse incision is made on the ventral aspect of the penis between the meatus and the glans. All of the subcutaneous fibrous tissue is removed and the lateral portions of the skin are undermined. This allows the skin to be closed in a longitudinal direction, thus restoring the penis to its normal configuration.

With more advanced cases of penile hypospadias and with perineal hypospadias, a more extensive procedure is required. Following removal of the subcutaneous fibrous tissue a large skin defect is present on the ventral aspect of the penis. The hypospadiac meatus now may be further back due to the increased length of the penis. The prepuce is then utilized to cover the raw area of the penis. This is accomplished by incising the prepuce around its entire circumference at the junction to the glans. The dorsal flap thus formed is bisected by a midline incision, creating two flaps connected at their base. Each lateral flap is then brought around to cover the raw area on the ventral surface and the edges are sutured with interrupted fine catgut. Some urologists prefer to buttonhole the dorsal flap of prepuce, insert the glans through this opening, and then bring the prepuce down over the raw

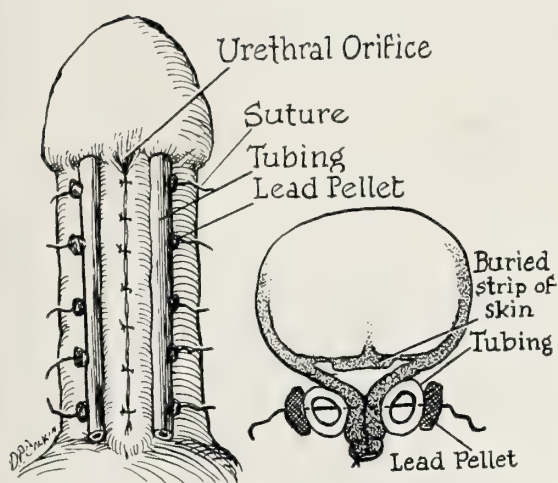


Figure 5. (a) The two lateral skin flaps have been approximated by a layer of single silkworm or wire sutures held in place by lead pellets against a segment of rubber catheter on each side. The skin edges are approximated by interrupted fine catgut sutures.

(b) Cross-section of the reconstructed urethra showing the buried strip of skin and the method of approximation of the lateral skin flaps.

ventral surface. This accomplishes the same result and obviates the need for midline sutures to hold the lateral flaps in place. In either case, the end result should be a straight penis with well vascularized, soft skin along the ventral aspect from the hypospadiac meatus to the glans. This transplanted skin will be utilized for the subsequent reconstruction of the distal urethra.

The second stage in the repair of the hypospadias is the reconstruction of the urethra. There is some divergence of opinion as to when this should be attempted, but the trend today is that it should not be delayed beyond the age of 4 or 5 so that the child will be able to void in an upright position by the time he begins to attend school. This will avoid any psychological trauma due to the necessity of urinating in a sitting position in the presence of other boys. Some urologists, however, feel that by waiting a few more years, a better result is more likely because the surgical procedure may be technically easier.

In general, the results of surgical repair of hypospadias have not been very satisfactory. This is apparent from the great variety of surgical techniques described in the medical literature. Complicated procedures have been devised, utilizing skin grafts of various types but the

high incidence of poor results has discouraged many surgeons and urologists from treating this condition. The postoperative occurrence of strictures, large fistulas, and sloughing of the new urethra have been the main complications of most operations. Multiple attempts at repair with only equivocal results have not been unusual.

In recent years Denis Browne of London has described what seems to be the most satisfactory procedure yet devised. He establishes four criteria for a satisfactory operation: 1) It must be applicable to all degrees of the abnormality; 2) it must construct a urethra free from hairs on the inside and of approximately normal size and elasticity; 3) it must be capable of completion by the time the child goes to school; and 4) it should be capable of consistent performance by any reasonably capable surgeon. All of these requirements seem to be fulfilled by the Denis Browne operation and it is becoming the most commonly used procedure.

The basic principle of the operation is the fact that rapid and complete epithelization of a preformed canal of subcutaneous tissue will occur from a single strip of buried skin. First, a perineal urethrotomy is performed with the patient in lithotomy position. This allows for diversion of the urine away from the reconstructed urethra during the period of healing. Two vertical incisions are then made in the midline on the ventral aspect of the penis from the glans to just below the hypospadiac meatus where they are joined by a transverse incision. This longitudinal strip of skin provides a nidus from which epithelization will occur, forming the epithelium of the new urethra. Each lateral skin flap is undermined completely around to the dorsum of the penis. A long vertical incision is then made through the skin on the dorsum of the penis from the glans to the base. This allows for complete mobility of the lateral skin flaps and insures absence of tension on the suture lines. It also permits adequate drainage of any accumulated serum or blood which may form under the skin flaps. The edges of the lateral skin flaps are approximated by means of single threads of interrupted fine nylon or steel wire sutures which are inserted approximately $\frac{1}{2}$ inch from the skin edges. Each suture is held in place by a crushed lead pellet at each end, applied without pressure, but close enough

to bring the skin flaps in loose approximation. The skin edges are sutured with interrupted 0000 chromic catgut.

During our early experience with this operation, it was noted that marked edema and some necrosis developed in the skin adjacent to the lead pellet. At the suggestion of the urology resident, Dr. Alberto David, a small segment of an ordinary rubber catheter (size 12 or 14F) was inserted between each lead pellet and the skin. This served to approximate the skin flaps with less pressure from the hard lead and apparently prevented excessive edema and necrosis.

Because the tissue of the glans is extremely vascular and the overlying skin is difficult to mobilize, attempts to bring the new meatus to its normal position at the tip of the glans usually are unsuccessful. We have been content to reconstruct the urethra so that the meatus lies immediately adjacent to the corona at its ventral margin. This produces a satisfactory functional result since the patient can void in a standing position without wetting himself. Also, the meatus is far enough forward so that in later years, insemination can occur in a normal fashion.

The immediate result of the operation is a long tube lined with subcutaneous tissue around three-quarters of its circumference and covered with skin. The remaining portion of the tube is lined with a buried strip of skin. Within 10 days the entire inner circumference of the tube becomes completely epithelized from the buried skin strip with the formation of a new urethra. No indwelling catheter is used in the reconstructed urethra to eliminate any foreign body reaction with subsequent scarring and stricture

formation. The nylon skin sutures are removed in one week and the perineal urethrotomy catheter is removed in 10 days. As a rule, the child then voids through the new urethral meatus without difficulty.

We have now performed the Denis Browne operation for hypospadias in eight patients. In six, a perfect result was obtained. In the remaining two, a single pinpoint fistula developed at the distal end of the new urethra. This was closed easily and successfully several months later in one patient and required only three days of hospitalization. The last patient will have his fistula repaired in the near future.

The results in this small series of cases have been encouraging, especially when compared to our previous experience with other techniques. The Denis Browne operation is simple and requires no elaborate or extensive surgical manipulation. It re-establishes a basic urologic principle—namely, that the amazing capacity of epithelial lined tissues to regenerate makes urologic surgery possible. The excellent results obtained thus far indicate the soundness of the procedure. The child with hypospadias no longer presents a difficult surgical problem with a questionable prognosis but instead, can expect a successful surgical correction of a very distressing condition.

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License to Practice Expires in July

JOHN W. NEAL, CHICAGO

Illinois physicians should note that their present licenses to practice Medicine in Illinois will expire automatically on July 1, 1958. This is true also of other types of licenses issued under the Illinois Medical Practice Act. Licenses may be renewed easily and at a nominal cost. They will have to be renewed on or before July 1, 1958, and on or before July 1 of every even numbered year thereafter.

These requirements for re-registration of physicians are the result of amendments to the Illinois Medical Practice Act passed by the 70th Illinois General Assembly in 1957. The full text of the applicable provision of the Medical Practice Act is set forth at the end of this article.

Re-registration of physicians, whether annually or at some other interval, has been a topic of spirited discussion among members of the Illinois State Medical Society for a number of years. At its annual meeting in May of 1957, the House of Delegates of the Illinois State Medical Society approved the principle of annual re-registration, and directed the Society's Committee on Medical Service and Public Relations to work out details with the Illinois Department of Registration and Education and with committees of the state legislature. On at least two previous occasions, the House of Delegates rejected proposals dealing with re-registration of physicians.

The principle is by no means new. Many states have for years required physicians and other practitioners of the healing arts to renew their licenses at established intervals. In Illinois, pharmacists, registered nurses, and others are obliged to renew their licenses annually, and the trend in recent years has been for more and more of the trades and professions regulated through the Illinois Department of Registration and Education to accept re-registration as a part of their regulatory procedure. Opponents

of re-registration have correctly pointed out that Illinois lawyers are not required to renew their licenses, and they argue that doctors of medicine should be in no different position. Admission to the Bar and all disciplinary control of lawyers is within the exclusive jurisdiction of the Supreme Court of Illinois, and not of the Legislature or the Department of Registration and Education. These opponents also have expressed the fear that nominal registration fees intended merely to pay the cost of re-registration might subsequently be enlarged substantially and converted into a revenue producing mechanism.

In the interests of effective administration, the Department of Registration and Education has long advocated re-registration of all of the trades and professions subject to its jurisdiction. Without it, administration and enforcement of the various regulatory acts are made more difficult, as no current or reliable information is available as to licenseholders who may have died, retired, become incapacitated, or moved out of Illinois. The Department and its Medical Examining Committee feel certain that a substantial number of individuals are treating human ailments in Illinois with the use of licenses that have been either lost or stolen, or originally issued to persons now deceased. By taking inventory at regular intervals of individuals currently engaged in the treatment of human ailments in this state, the Department can assemble much useful information and proceed more effectively against unauthorized practitioners.

When the matter was presented to the House of Delegates in 1957, it was suggested that re-registration be required annually at a fee not to exceed \$3.00. Subsequently, as a result of discussions with the Department and with committees of the legislature, it was thought wiser to require re-registration every second year at a fee of \$6.00. These were the terms enacted by the legislature with the endorsement and approval of the Illinois State Medical Society, the Depart-

General Counsel, Illinois State Medical Society

ment of Registration and Education, and organizations representing other healing arts groups.

Although there doubtless will be some confusion and misunderstanding when the new law first becomes operative in June of 1958, the mechanics of re-registration should be quite easy for most physicians. The Illinois State Medical Society and other organizations will co-operate with the Department of Registration and Education in informing physicians and other practitioners as to the requirement for re-registration. A simple printed form will be provided by the Department and mailed to all members of the Illinois State Medical Society, and as many other practitioners as the Department can locate. The practicing physician need only sign the form, correct any obsolete information, and mail the form to the Department of Registration and Education in Springfield, together with his check for \$6.00. He will receive by mail his renewal license valid until July 1, 1960. At that time, a similar renewal procedure will be carried out.

It is no longer required that physicians record their licenses with the County Clerk. The amended law relieves the physician of this responsibility and expense by providing that the Department shall publish at least annually a list of the names and addresses of all licensees under the Medical Practice Act. The law further provides that one copy of such list shall be mailed to the County Clerk of each county, and shall be held by him as a public record. In addition, the Department will supply a copy of the list to any person in Illinois upon request.

Those who have studied the problem of re-registration closely over a period of years feel

that its potential benefits and advantages will far outweigh the minor inconvenience caused the physician every second year. The Society has the assurance of the Department of Registration and Education that every possible effort will be made to spare physicians any unnecessary inconvenience.

The pertinent sections of the Medical Practice Act are:

"Section 14. ****Every license issued under this Act shall expire on July 1, 1958 and every July 1 of each even numbered year thereafter. Every licensee under this Act may, biennially, during the month of June of each even numbered year, renew his license and pay to the Department a renewal fee of \$6.00.

"Any licensee whose license has expired whether such licensee is in active practice or not, may have his license restored at any time, within 5 years after the expiration thereof, upon payment of all lapsed renewal fees and a restoration fee of \$5.00.

"Section 15a. The Department shall at least annually publish a list of the names and addresses of all licensees who hold licenses under the provisions of this Act, and of all persons whose licenses have been suspended or revoked within one year, together with such other information relative to the enforcement of the provisions of this Act as it may deem of interest to the public. One of such lists shall be mailed to the county clerk in each county of the State and shall be held by the county clerk as a public record. Such lists shall also be mailed by the Department to any person in the State upon request."

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The Mosquito Pill

MANUEL G. SPIESMAN, M.D., CHICAGO

Being a physician and part owner of a summer camp for boys and girls, I am naturally interested in the medical problems of a camp, including the prevention and treatment of itching following mosquito bites.

A camp of this kind usually plans to have a physician and two graduate nurses for a two or four week period. Occasionally, a physician is obtained for the entire season. Having a busy practice of my own, I manage to spend a two week period once or twice during a camping season. During one of my two week assignments, I met an allergist from Milwaukee, who also was spending a little time at our camp as a physician. It was he who first suggested the use of antihistaminic compounds for the prevention of itching following mosquito bites. He suggested Perazil® as his drug of choice, because it relieved itching and produced a minimum of drowsiness. This seemed to both of us an ideal approach to a troublesome problem.

We began using Perazil on everyone reporting to the health center complaining of mosquito bites. Later, for study purposes, we divided our campers into two groups. The first consisted of boys and girls who came into the health center for the relief of itching from mosquito bites acquired in the camp. The second were campers who acquired mosquito bites on overnight hikes, canoe or horseback trips.

Since our campers ranged in ages from 6 to 16 years, we decided to give those under 12 years of age, 25 mg. about 6:00 p.m. and another 25 mg. the next morning if itching recurred. For those over 12 years of age, 50 mg. were prescribed at 6:00 p.m. and 25 mg. more in the morning, if indicated.

For further study purposes, we worked out a questionnaire. Since this paper is not intended as a scholastic contribution but rather a clinical one we will avoid confusion by offering total

percentages and answers for all questions. Instead we will mention in our summary only the percentages and answers we feel are of clinical value.

QUESTIONNAIRE

PREVENTION OF ITCHING FROM MOSQUITO BITES (STUDY OF CAMP CHILDREN)

NAME
SEX
AGE
CAMPER
HIKER

GROUP I — Camp Questions

1. Have you ever had mosquito bites?
2. Did the bites cause itching?
3. How many days did itching last?
4. Did the bites get infected?
5. What medicines did you use for relief?
Local, oral, or both?
6. Did the medicine give you relief?
7. Did the mosquito pill stop the itching?
How soon?

GROUP II — Trip Questions

1. Have you had mosquito bites on previous trips?
2. How much itching resulted?
3. How long did the itching last?
4. What treatments did you use? Local?
Oral?
5. What relief did you get?
6. Did you use the mosquito pill on this trip?
7. When did you take them? A.M.?
P.M.?
8. How many days did you take them?
9. Did you have any itching at night?
Day?
10. Did the pills make you sleepy?
11. Did the drowsiness interfere with your trip in any way?

Medical Director, Camp Maccabee, Pelican Lake, Wisconsin.

*Burroughs-Wellcome and Co.

12. Did infection of the mosquito bites show?
13. How many days did the bites show?

About 100 campers were studied and received Perazil as a preventive for itching and also for treatment of this complaint.

First Group.—Practically all of the boys and girls questioned had had mosquito bites previously. Ninety eight per cent stated that mosquito bites caused itching, lasting several days. In about 50 per cent, the campers came in with secondary infection following scratching. Calamine or benadryl lotion gave some relief to the majority. The only preventive previously used in camp was citronella. In the infected cases an antibiotic ointment was dispensed. With the advent of Perazil, administered as described previously, itching and scratching ceased, and infected bites cleared up rapidly. Before the use of Perazil, infected bites took many more days to clear up because of the persistent and continued itching and reinfection from scratching. When the word got around that a mosquito pill could be obtained in the health center, many came in for one whenever exposed to mosquitoes.

Second Group.—In the second group, consisting of overnight or several day horse or canoe trip campers, the councilor was given an adequate supply of Perazil to be administered in 25 or 50 mg. doses, according to the age of the campers, at 6:00 p.m. each evening and again in the morning, if itching recurred.

The questions listed above, were asked before the trip started. Practically all of the campers had had mosquito bites on previous trips and

98 per cent complained of itching, lasting several days following exposure. Many reported secondary infections with previous exposures. The treatment usually given at camp was calamine or benadryl lotion. The only preventive that had formerly been used was citronella. When the first of the second group of campers left on a three day hike, we awaited their return to learn of their experiences. All campers, as well as the councilor were instructed to report to the health center immediately upon their return from the trip. The reports were most satisfactory. Out of the total of 100 cases, all but 4 per cent enthusiastically endorsed the mosquito pill. The councilor, as well as the campers, reported no drowsiness. All had been bitten in innumerable places, but no itching was experienced. Because of the lack of itching, there was no scratching hence no secondary infection occurred. The campers had received their pills in the evening. Only a small number required a second pill the next day. As a prophylactic measure the pills were continued each evening for two extra days after the return from the trip.

CONCLUSION

In conclusion, I can report that the antihistaminic tablet, Perazil, used in this study accomplished everything and more than was hoped for in this approach to relief and prevention of itching from mosquito bites. The tablet is now used routinely in our camp. This paper was written in the hope that the mosquito pill would do for other campers throughout our country what it has done for us.

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Management of Seminal Vesiculitis

BEN SEID, M.D., CHICAGO

THE seminal vesicles are the male analogue of the female fallopian tubes. Belfield called them "pus tubes in the male." The vesicles arise in the third fetal month as a hollow tube from the vas deferens by way of the Wolffian duct which is the mesonephric excretory canal opening high and lateral into the cloaca.

The vesicles are musculomembranous pouches annexed to the ejaculatory ducts and the vas deferens. They lie between the rectum and base of the bladder and converge diagonally toward the midline. The average normal size is 5 cm. long by 12 mm. wide, or 2 inches x $\frac{1}{2}$ inch. They lie obliquely downward, inward, and slightly forward. A normal sized vesicle cannot be palpated per rectum, but a pathological, enlarged vesicle is easily felt. The vesicles are formed by the coiling of a single tube, united by strong connective tissue. Unraveled, the tube measures 10 to 12 cm., about 4 inches in length. The vesicles are the reservoirs of the testicular secretion. They are continuous with the deferential canals, and eject testicular secretion with each ejaculation. They are situated in the lesser pelvis behind the bladder in front of the rectum and are attached superiorly to the prostate by an envelope of fibrous which is the prostatoperineal fascia of Denonvilliers. The capacity of the vesicles varies according to the activity of the testes and the frequency of sexual indulgence, but averages about 1.5 to 2 cc.

Each vesicle is a highly convoluted tubule, the convolutions being held together by dense fibrous connective tissue and muscular fiber bands. This arrangement causes difficulty in eliminating infection after the glands are invaded. They are rich in blood supply. The arteries arise from the inferior vesical and median hemorrhoidal and the veins drain into a plexus situated at the base of the bladder. The lymphatics are numerous and drain into the deep pelvic glands. The nerves arise from the hypogastric plexus.

The majority of vesicular infections are due to gonococcal invasion but any pathogenic or-

ganism may set up an infection by invasion of the urethra, by continuity from the prostate gland, by dissemination through the blood and lymph streams from the respiratory, glandular, or intestinal tracts. Infections may occur from traumatism by falls, blows, or brutal, unclean instrumentation of the urethra. Tuberculosis involves the vesicles in 35 to 75% of genitourinary tract involvements and is bilateral in half the cases with hard nodules present at the lower pole, that spread upward.

Symptoms of the acute phase are a sense of tension in the perineum with severe pain over the bladder region and perineum radiating to the thighs, buttocks, legs, and abdomen; tenesmus; painful erections; sperm in the urethral discharges; and purulent or bloody seminal emissions. Defecation may be very painful and dysuria is marked. Diagnosis is made by rectal examination which reveals an edematous, hot, extremely tender area in the region of the vesicles. The patient runs a fever and the WBC is elevated. Terminal hematuria or postcoital blood in the sperm frequently indicates the diagnosis. Pain is so acute, this disease has been mistaken for acute appendicitis, renal colic, acute pancreatitis, or mesenteric thrombosis.

Treatment of the acute stage is rest in bed, light diet, no condiments, no coitus, and plenty of fluids. Antibiotics by hypo and orally, sulfonamides, antipyretics, and analgesics are the medicaments used. No massages, strippings, or rectal douches should be given in the acute stage, which usually subsides. Then follows the chronic phase, which may remain latent for years only to be aroused by lifting heavy weights, excessive alcoholic drinking, or excessive coitus.

Symptoms of the chronic stage are insidious and may appear with nothing more than a daily morning urethral discharge or drop (once called the "old rale," the old "con," or "gleet"). There may be urgency, painful terminal urination, and a dull pressure ache in the perineum. The patient may complain of pain in the rectum, legs, thighs,

penis, joints, groin, suprapubic area, and abdomen. The most important single subjective symptom that brings the patient in for relief is that of decreased libido ("poor nature," or "loss of nature"). These men become sexual neurotics and many are difficult to cure. They complain of loss of erectility, short periods of erection, softness of penis so that they cannot penetrate their partner, ejaculatio praecox, mental distress, severe nervousness, discouragement, tiredness, no sexual pep, no ambition or vitality, forgetfulness, a feeling of personal shame and loss of self-respect, poor work output, indigestion, dull headaches, bladder trouble, spots before the eyes, rings under the eyes, dizziness, frequency, nocturia, slow stream, strictures, low back pain, male climacteric symptoms, or sterility. In many instances, the wife accuses the patient of cheating, leaves him, locks him out of the house, or divorces him.

The patient enters the doctor's office with severe pain in the rectum and lower back and the most obvious objective sign possible a large mustard plaster over the lumbosacral area. In the active treatment of the chronic stage we interdict the use of alcohol in any form, citrus fruits and juices, carbonated drinks, coffee, tea, condiments and spices, heavy lifting, and coitus until a later date. The next step is a detailed course of urethral hyperdistention that causes enlargement of the ejaculatory duct ostiae of the colliculus seminalis, which is usually enlarged.

The urethra is first calibrated by means of fiber bougies to determine its caliber and then dilated by Van Buren sounds or filliform guides with pigtail ends and fiber follower. Bougies are started with #8 F and used every fourth day increasing by 2 sizes French until #26F is reached. The fiber bougies are preferred to the metal sounds because they do not cause an ascending G. U. tract infection or urethral infection with resultant chills and fevers. Dilatation of the urethra serves a dual purpose: it enlarges the adits of the ejaculatory ducts and it tears open any pockets of nesting gonococci or other organisms present to eradicate them. It is futile to begin strippings or massage per rectum if the ostiae of the ejaculatory ducts are closed by mucous plugs or enveloped in stricture tissue. First open the doors and then push out the causative invaders from the rear.

Prior to dilatation I use a solution of 1%

ephedrine instilled into the anterior or posterior urethra or both as needed with a 1/8 oz. hand bulb syringe for decongestion. Other anesthetic agents can be used such as procaine, Xylocaine®, Urolocaine®, or Pyribenzamine®. A word of caution is given in cases of older individuals who have sclerotic blood vessels incorporated in their strictures. When you reach sound #22F and larger, lubricate the instrument well and repeat the last size before proceeding to the next larger size. The urethra is a very delicate lining and cannot withstand brutal handling or strong solutions. In fact, many of our present day strictures are iatrogenic in origin from our old practice of instilling silver salts into the urethra.

After the urethra has been dilated, the vesicles are stripped once or twice weekly using a Van Locum masseur which is a variant of the Schmidt straight masseur, in that it contains an anterior curved tip so that it may reach over the pelvic brim to the apex of the vesicle and thus strip the entire organ successfully. The finger is never long enough to reach the end of the vesicles and this accounts for so many failures in the treatment of this disease.

Concomitantly with the passage of sounds, strippings, and massages we give parenteral injections of dihydrostreptomycin, Terramycin®, Tetracycline®, Sigmamycin®, or Chlormycetin®. For home use, the patient takes Mystecilin V® or Comycin® or sulfas such as Kynex®, Gantrisin®, and Elkosin® and hot sitz baths. Later in the treatment the patient is given tranquilizers such as Compazine®, Suavitol®, Moderil®, or Serpatilin® for the sexual neurosis and injections of vitamin B 100 mg. or Pluriglandular® extracts to enhance his libido. I have used Xanthinex® and Testoferol® tablets together, with a modicum of success. Injections of testosterone and estrogen have given ephemeral results only. I never use penicillin as the antibiotic of choice because I have shown by smear and culture that it does not kill gonococci in about 40 to 50% of cases. For the sexual psychotic or severe neurotic it may be necessary to resort to psychotherapy or analysis.

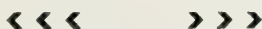
A stubborn form of vesiculitis is that caused by *Trichomonas hominis* and *albicans* (monilia). This is a refractory condition and long standing cases are difficult to cure. The sexual partners must use diaphragms and condoms.

Instillations of carbarsone and Tricofuron® solutions as well as Tritheon® tablets by mouth have proved futile. Assiduous and constant treatment as outlined above for vesiculitis is the only hope for cure in these conditions.

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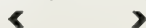


Nephroses

The nephrotic syndrome is a chronic illness, but special problems pertaining to this disorder are unique and often cause anxiety in the patient and his family and worry in the physician. To the patient and his family, edema is the illness that imposes certain restrictions and requires repeated expensive hospitalization for treatment and tests. Edema consciousness develops soon after the diagnosis of the nephrotic syndrome is made. The patient and his family quickly become aware of the relations among the fluctuations of edema, weight, and urinary output. The exacerbations and remissions of edema represent worsening or improvement of the disorder, and such variations may be associated with waxing or waning of anxiety.

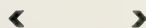
The need to prevent infections imposes on the patient the necessity of restricting his contacts and of careful scrutiny of those who see him. As a result, he and his family may become abnormally infection conscious, and every sniffle may represent impending disaster. As for the physician, unless he is familiar with the vagaries of the nephrotic syndrome, he may be subjected to worry as a result of his own ignorance and also by the need to relieve the anxieties of the patient or his family imposed by the disorder and its therapy. It is therefore essential that the physician feel secure in his knowledge of the nephrotic syndrome. He should be prepared

to tell the patient or his family what is and what is not known about the disorder — that is, its causes, duration, recovery, recurrences, final outcome, treatment, and so on — to avoid such anxiety as uncertainty may produce. Successful management of emotional disorders in the nephrotic syndrome is indeed complex, taxing the resourcefulness and understanding of the physician. *Harry A. Derow, M.D. The Nephrotic Syndrome. New England J. Med. Jan. 16, 1958.*



Bleeding from esophageal varices

Welch and co-workers have shown that coma, in cirrhotic patients bleeding from varices, probably is caused by the absorption of large amounts of digested blood from the intestine causing high blood levels of ammonia nitrogen. They now administer purgatives through the tamponade tube and frequent enemas to cleanse the intestinal tract of blood, and report definitely better results. Further experience will probably prove this to be an important addition to our therapy. *Tim J. Manson, M.D. The Management of Upper Gastrointestinal Bleeding. J. Tennessee M. A. Nov. 1957.*



You will never be a leader unless you first learn to follow and be led. — Tiorio

New viruses

In the field of respiratory diseases, although the dramatic events of the recent pandemic of influenza have focused attention on the new (Asian) variant of the influenza A virus, enormous strides have been made and are being made in the isolation and identification of other groups of new viruses from respiratory infections. The entire group of adenoviruses is now well established. The agent of pneumonitis of the newborn, originally described in Sendai, Japan, was subsequently recognized as related to such infections in the United States and Canada, and infections with this or antigenically related agents have been recognized in Great Britain; the designation "influenza D" has been suggested for this agent. Viruses have been isolated from patients with infantile croup. Other "respiratory syncytial" viruses have been isolated from infants with respiratory infections, and still other newly recognized viruses have been isolated from respiratory infections in naval recruits, as well as from patients with the common cold (J. H. virus). A group of workers from the Laboratory of Infectious Diseases of the National Institutes of Health and from the Children's Hospital in Washington, D.C., describe two new viral agents among the myxoviruses (the best known of which are the viruses of influenza, mumps, and Newcastle disease) that they isolated from children with acute respiratory disease. They have labeled them hemadsorption viruses, to indicate that they were recognized by a method that involves adsorption of erythrocytes onto virus-infected cells in tissue cultures. Type 1 hemadsorption virus was recovered from 35 children, 27 of whom were involved in an outbreak of mild respiratory illnesses in a nursery, and the association of this virus with the illnesses was shown to be significant. The Type 2 virus was recovered from children with croup, and, although this type has some antigenic relation to a previously described agent associated with croup, it was shown to be distinct from it. Both these new hemadsorption viruses appear to share a common antigen, but they were both shown to be distinct and different from all other known myxoviruses. *Editorial. More New Viruses. New England J. Med. Jan. 30, 1958.*

The prevention of poison ivy

A stable alcoholic extract of fresh poison ivy leaves and stems was tested as an oral prophylactic agent against poison ivy dermatitis. Four hundred and fifty-five subjects, including private patients and the employees of a tree service company, were given the extract orally in small daily doses for six weeks prior to the poison ivy season and less frequent maintenance doses during the season. All subjects had a previous history of sensitivity to poison ivy. During the season following prophylaxis, 76.9 per cent of the subjects were either free of ivy dermatitis or experienced milder attacks. Two of the patients complained of nausea and gastrointestinal disturbances. There were no other reports of untoward side effects. *Elmer R. Gross, M.D. An Oral Antigen Preparation in the Prevention of Poison Ivy Dermatitis. Indust. Med. March 1958.*

◀ ▶

Cobalt-60

Since the first cobalt-60 treatment at St. Francis Hospital was given on November 12, 1957, it is too early to assess the results of treatment in our own patients. However, the writer has visited cobalt-60 therapy installations for varying periods of time at M.D. Anderson Hospital, Houston, Texas; Mercy and Allegheny General Hospitals, Pittsburgh; University of Maryland Hospital in Baltimore; and the University of Chicago, Cook County, and V.A. Research Hospitals in Chicago. In these institutions, cobalt-60 therapy has produced no miracles. Despite the fact that it has been used since 1951, insufficient data have been accumulated to establish its superiority as a curative agent. However, radiologists who have been using the modality are of the opinion that the cure rate in some forms of cancer has been improved slightly. The main benefit of cobalt-60 therapy lies in better tolerance by the patient to irradiation therapy of this type. As Perryman so aptly put it, "While the cancer may not appreciate the difference between conventional X-ray therapy and cobalt teletherapy, the patient certainly does." *James C. Katterjohn, M.D. Cobalt-60 Teletherapy. J. Indiana M.A. Feb. 1958.*

◀ ▶

Ideas are a capital that bears interest only in the hands of talent. — Rivarol



Spontaneous Perforation of the Cecum

**WILLIAM H. MYERS, M.D., GEORGE F. DWYER, JR., AND
MANUEL E. LICHTENSTEIN, M.D., CHICAGO**

SPONTANEOUS perforation of an undiseased cecum is an unusual occurrence. Ravid in 1951⁵ was able to collect a total of only 81 cases from the literature. Many more must occur but are not reported.

A. L., an 83-year-old white female, was admitted to Cook County Hospital on November 21, 1956. She had become acutely ill three days prior to admission and complained of generalized abdominal pain, distention, and obstipation. She had been anorexic during this time and had vomited several times on the day of admission. Previously she had noted constipation for six or eight months and had lost considerable weight during this time. Past history was otherwise non-contributory.

Examination: Temp. 102.4 F; pulse, 140; blood pressure 70 over 50. The patient was extremely hypohydrated and showed evidence of great weight loss. The other positive physical findings were limited to the abdomen and consisted of marked distention, rigidity, generalized and rebound tenderness. Bowel sounds were absent. There were no organs or masses palpable. Liver dullness was absent. The pelvic and rectal examinations were negative; benzidine test on the stool was strongly positive. Hematocrit was 50, and the urine was positive for acetone.

Department of Surgery, Cook County Hospital, Chicago, Illinois.

X-rays of the abdomen taken on admission showed a colon which was greatly distended to the region of the splenic flexure with no gas beyond, some gas in the small bowel and a large amount of free air in the peritoneal cavity. Figure 1.

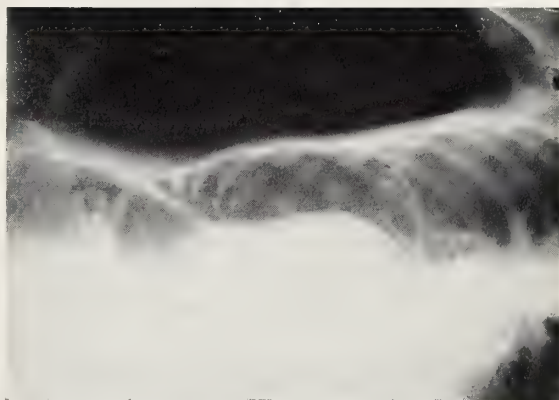


Figure 1. Left lateral decubitus view demonstrating pneumoperitoneum.

A diagnosis of perforated cecum was made. After a short period of preparation which included 3000 cc. of intravenous fluids with broad spectrum antibiotics and 500 cc. whole blood, the patient improved and was taken to the operating room.

A McBurney's incision was made (1 per cent procaine anesthesia) and a large amount of air with purulent fluid escaped from the peritoneal

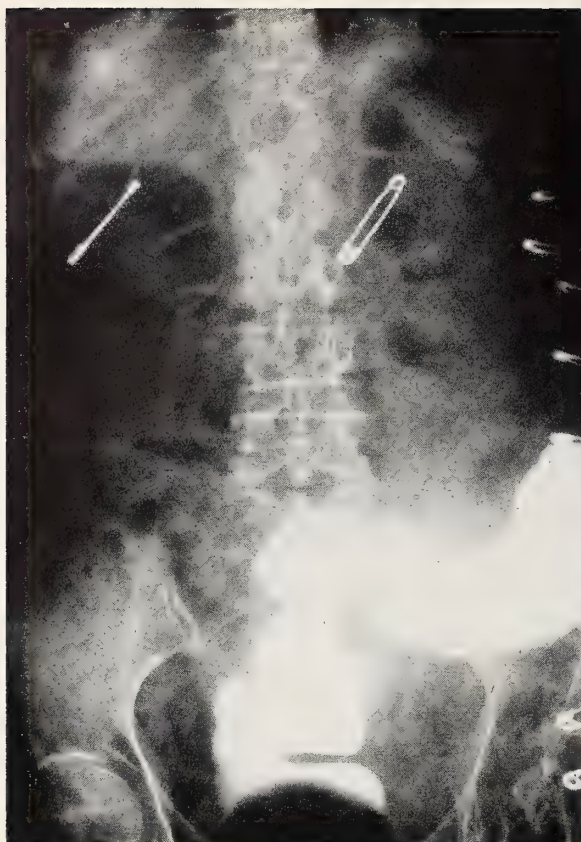


Figure 2. Preoperative barium enema demonstrating obstruction just below the splenic flexure.

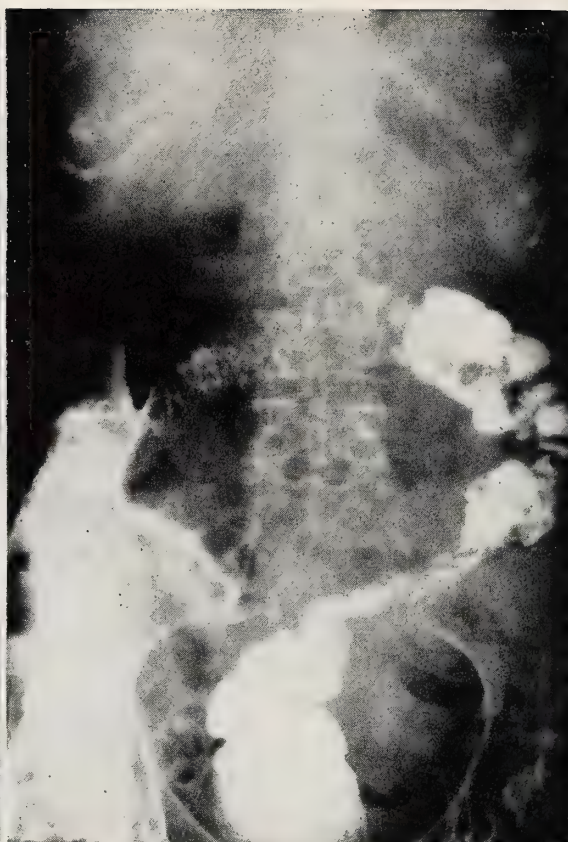


Figure 3. Postoperative barium enema.

cavity. The cecum was delivered into the wound and proved to be the source of contamination. On the anteriomedial surface of the cecum there was an area of gangrene 2 cm. x 3 cm. with several small perforations measuring up to 4 mm. Two curved clamps were placed on the exteriorized cecum, and the wound was loosely closed.

Postoperatively, the patient remained in precarious condition for many hours but began to improve gradually with intravenous fluids, electrolytes, blood, and massive antibiotic therapy.

Subsequently, a barium enema showed complete obstruction in the descending colon.

On March 1, 1957 a left hemicolectomy with primary anastomosis was done for a carcinoma just below the splenic flexure. The postoperative recovery was uneventful. Later, films taken following a barium enema disclosed a colon free from obstruction and a well-functioning cecostomy.

On March 15, 1957 the cecostomy was closed and the bowel returned to the abdomen. Recovery

was again uneventful and the patient was discharged from the hospital two weeks later.

DISCUSSION

Perforation of the normal cecum is almost always due to obstruction of the distal colon; the most common primary lesion is, of course, carcinoma. Other causes of obstruction are diverticulitis, benign stricture processes, congenital defects, and adhesions.

Of the malignant tumors which cause cecal perforation, most are located on the left side; over 50 per cent of these are in the recto-sigmoid area.⁵

The pathogenesis of perforation is based on two factors. First, rapid mechanical distention alone can cause the cecum to rupture^{11,3,12}. This was shown to occur experimentally when 50 to 100 cm. water pressure, produced a non-gangrenous slit without surrounding reaction or inflammation.

Second, and probably more important is the

effect of gradual distention on the vascular supply to the bowel. Sperling⁸ and Wangenstein¹² demonstrated that at 60 mm. Hg. intra-luminal pressure, venous stasis existed and at 90 mm. Hg., the arterial supply was markedly reduced. The effect of the passage of time was noted by showing that at 10 cm. sustained water pressure, petechial hemorrhages of the mucosa appeared; at 20 cm. of water pressure necrosis and gangrene occurred in 28-32 hours; and at 40 cm. of water pressure necrosis and gangrene occurred in 17-20 hours. Clinically, pressures measured at the time of colostomy for acute colonic obstruction varied from 12-52 cm. H₂O; most were above 23 cm. These pressures are well within the range which produced necrosis and gangrene experimentally. They are also considerably below the pressures necessary to rupture the cecum from mechanical distention alone. It must be assumed, of course, that the ileocecal valve is competent and can retain these pressures so that no perforation will occur^{7,11}.

Both types of distention are described because each factor plays a role and both act simultaneously to produce perforation. The rate at which the pressure builds up probably determines the type of perforation. Our review of the literature shows that the gangrenous type, as typified by the case reported, is by far the most common.

Clinically, the patients present the usual findings of an acute colonic obstruction, plus the findings of a generalized peritonitis. The antecedent history usually includes constipation for many weeks with obstipation for several days, abdominal distention, and mild pain. The diagnosis is made from this clinical picture, plus X-ray findings of large bowel distended up to the point of obstruction with free air in the peritoneal cavity. Barium enema and proctoscopy can be very helpful if any doubt exists as to the diagnosis. The treatment of preference is exteriorization of the cecum without abdominal exploration.

The mortality of cecal perforation is 70-80 per cent^{1,3,5,11} due to the severe peritonitis and the neglected condition of the patient. This mortality can be reduced only by the prevention of such perforations.

Carcinoma of the colon makes its presence known early by very vague symptoms, and it is necessary to be alert to this symptomatology so

that the diagnosis can be made before complete obstruction occurs. When complete obstruction is present an effort must be made to relieve this either from below or by cecostomy.

Some patients have early symptoms referable to the right lower quadrant for many weeks. This should serve as a warning and a suspicion of a left colonic lesion although the diagnosis of unrelated diseases, including acute and recurrent appendicitis, may delay the diagnosis of the primary disease for some time.

SUMMARY

1. A patient who had a perforated cecum secondary to an obstructing carcinoma at the splenic flexure is presented. The case is interesting because prompt exteriorization of the cecum made survival possible. Resection of the colon with its obstructive lesion followed by closure of the cecostomy restored the continuity of the colonic lumen.

2. The pathogenesis, clinical features, diagnosis, treatment, and mortality of perforation of the cecum are discussed briefly.

3. The high mortality of perforation of the cecum can be lowered only by earlier recognition of the vague symptoms of carcinoma of the colon or by the early recognition and treatment of acute colonic obstructions before perforation.

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Subacute Hepatitis And Post-Necrotic Cirrhosis

FRANCIS J. TENCZAR, JR., M.D., CHICAGO

A 62 year old white housewife entered the hospital because of epistaxis and jaundice.

Present illness: The patient has had repeated spontaneous epistaxis since the menarche at age 11. She noted constant menorrhagia for which she received X-ray therapy at age 45 after which menses ceased. She bruised easily all her life but there were no spontaneous ecchymoses or increased bleeding after small injuries. At age 30 she first noted "telangiectatic" lesions on the hands and subsequently similar lesions continued to appear on the lips, buccal mucosa, and numerous other sites. On at least 10 occasions severe hemorrhages from various sites including the nose, gastrointestinal tract, gums, palate, tongue, and vagina required hospitalization during which she received a total of 18 units of blood. After 3 transfusions she developed fever and urticaria and on 2 other occasions she became comatose. Blood grouping studies* 2 years ago showed the patient to be A₂, Rh₁ (CDe) hr⁺ (c) positive, MN, Fy^a, and Kell (K) negative; anti-Fy^a (Duffy) was identified in her serum. She received her last blood transfusion because of

epistaxis 14 weeks before the present admission.

During the 10 weeks before admission she noted a constant aching, increased by exercise or exposure to cold, in both legs and the right arm. Two days before admission she had an epistaxis. When seen by her physician jaundice was observed and she was hospitalized.

Past history revealed hay fever, asthma, urticaria, "arthritis" relieved by dental extraction, appendectomy, and tubal ligation.

Family history: The patient has 3 sons. Child-birth was not accompanied by abnormal bleeding. Her 3 sons have developed telangiectatic lesions similar to those of the mother. In addition 5 sisters and 1 brother are similarly afflicted. Her father died from a "cerebral hemorrhage" at age 49 and another brother died following "headaches."

Physical examination revealed an alert jaundiced patient in no distress. Temperature 98° F.; pulse 108; respirations 18; blood pressure 125/80 mm. Hg. Multiple 1-3 mm. angiomas were observed over the finger tips, palms, lips, eyelids, nasal mucosa, and tongue. Funduscopy was normal. The head and neck were not remarkable. There were no masses in the breasts. The heart and lungs were normal. The liver and spleen were tender and their lower margins were 2 fingerbreadths beneath the costal margins. The extremities were symmetrical and no abnormal neurologic findings were elicited.

From the Departments of Pathology of Chicago Wesley Memorial Hospital and Northwestern University Medical School.

*Performed at the Blood Center, Mount Sinai Medical Research Foundation, Chicago, through the courtesy of Kurt Stern, M. D., Director.

Laboratory data: Urinalysis was normal. Hematocrit 36%; hemoglobin — 10.7 grams per 100 ml.; red count — 3.5 million per cu. mm.; white count — 8000 per cu. mm.; differential — 73 segmented and 3 unsegmented neutrophils, 19 lymphocytes, and 5 monocytes; bleeding time — 3 minutes; clotting time — 10.6 minutes; platelets — 141,750 per cu. mm.; tourniquet test — positive. The total bilirubin was 11.8 mg. per 100 ml. with 4.6 mg. "direct reacting" bilirubin; thymol turbidity 16.5 units; cephalin flocculation 4+ in 24 hours; alkaline phosphatase 4.0 Bodansky units; Watson's 2-hour urine urobilinogen test — 8 Erlich units; total serum protein 6.0 gm. per 100 ml. with 2.5 gm. albumin; prothrombin time 25%; nonprotein nitrogen 16.0 mg. per 100 ml. Serum electrolytes on the 5th hospital day were (mEq./L.): sodium 130, potassium 6.0, chloride 105, carbon dioxide combining power 21. The blood Kahn was negative.

An electrocardiogram as well as Roentgen studies of the esophagus, stomach, duodenum, and skull were normal.

Hospital course: The patient was put at bed rest, sedated, and given Premarin,[®] nicotinic acid, Synkovite,[®] and Equanil.[®] On the 3rd hospital day she complained of deep aching pain in the interscapular region with radiation to the extremities. The pain was relieved by morphine sulfate. The following day she vomited 50-100 ml. of fresh blood and on examination there was diffuse oozing from the nasal mucosa. Two units of whole blood were given. Nausea and vomiting appeared and were accompanied by marked tenderness over the right upper quadrant. Lethargy developed; nasal hemorrhage recurred; and by the 8th hospital day nausea and vomiting were marked. The patient's temperature remained 98-99° F. while the pulse fluctuated from 90-120. The urine output during the first week was 1000-1500 ml. per day but less than 500 ml. per day thereafter. On the 11th hospital day the liver was palpated 17.0 cm. beneath the costal margin and the abdomen was markedly distended. Paracentesis recovered 3450 ml. of clear yellow fluid. The patient became disoriented and peripheral edema appeared. The serum bilirubin increased to 29 mg. per 100 ml. and the nonprotein nitrogen rose to 52 mg. per 100 ml. Glutamic acid, Achromycin,[®] and a 1400 calorie glucose — sucrose diet were given but the pa-

tient lapsed into coma and died on the 17th hospital day.

CLINICAL DISCUSSION

Dr. Wilson Hartz. This patient exhibited the classic features of hereditary hemorrhagic telangiectasia (Rendu-Osler-Weber) by virtue of the similar hemorrhagic tendency in other members of her family, the recurrent epistaxis, and the typical appearance and distribution of vascular lesions involving skin and mucous membrane. The age of appearance of the telangiectatic lesions and their progressive increase in number is also typical. The absence of a coagulation defect is indicated by the past history of surgery and childbirth without abnormal bleeding and the absence of spontaneous bruising. The lifelong history of bruising after trauma was probably normal.

The repeated episodes of mucous membrane bleeding experienced by these patients result from minimal trauma with rupture of the superficial telangiectatic capillary loops. Since any mucosal surface may harbor these lesions, bleeding may occur from a variety of sites — epistaxis, hemoptysis, hematemesis, melena, hematochezia, hematuria. Hemostasis is difficult because the dilated thin-walled capillaries are unable to contract normally and considerable amounts of blood are lost. Associated vascular anomalies such as hemangiomas may occur in parenchymatous organs. The most intriguing is an arteriovenous fistula or hemangioma of the lung which produces cyanosis and clubbing of the fingers. This finding was absent in this patient.

As in this patient, blood transfusions are usually necessary to replace the blood lost through hemorrhage. If the blood loss is not too great, oral or parenteral (IM) iron therapy is valuable and may reduce the number of transfusions required. This is desirable since blood transfusion is always attended by distinct hazards such as isosensitization, a hemolytic reaction if the recipient is sensitized to a blood group factor present in the donor's erythrocytes, and the omnipresent danger of homologous serum hepatitis. All of these complications occurred in this patient.

From the history it would appear that the patient was in favorable health until 4 weeks after her last blood transfusion when she first experienced "aching." Ten weeks later jaundice

was noted. Physical examination, in addition to telangiectasia and jaundice, disclosed hepatic and splenic enlargement. Both organs on palpation were tender, a finding suggestive of inflammation. The abnormal cephalin flocculation, elevated thymol turbidity, and excessive urobilinogenuria are laboratory findings indicative of acute hepatocellular damage. The clinical and laboratory findings certainly justify the diagnosis of acute hepatitis due to the serum hepatitis virus.

There are features, however, which suggest that the liver disease may have started prior to the several days before admission. The 10 week interval of "aching" could represent the insidious onset. The enlarged spleen, even in the absence of other signs, may be the result of portal hypertension. If one assumes that the moderate thrombocytopenia is the result of hypersplenism, then this would also indicate splenic enlargement of some duration. Finally, the low serum albumin bespeaks a subacute or chronic hepatic insufficiency. Because of this reasoning the diagnosis of acute viral hepatitis should be modified and changed to post-necrotic cirrhosis with acute exacerbation.

The apparent increase in the patient's bleeding tendency during the last days of her illness could, in spite of the normal bleeding and clotting time, result from the complications of the liver disease. The increased vascular fragility and the moderate thrombocytopenia in combination with a deficiency of a coagulation factor or factors, as evidenced by the prolonged prothrombin time, may account for the bleeding phenomena. It should be noted that none of these defects alone is capable of producing spontaneous hemorrhage.

Finally, with the occurrence of the hemorrhagic diathesis, the patient's condition rapidly deteriorated. A mild degree of azotemia appeared and hepatic coma ensued. She died a liver death.

DR. HARTZ' DIAGNOSES

Hereditary hemorrhagic telangiectasia
Homologous serum hepatitis and post-necrotic cirrhosis
Hepato-renal syndrome (?)

ANATOMIC DIAGNOSES

Subacute hepatitis with post-necrotic cirrhosis
Hereditary hemorrhagic telangiectasia
Lower nephron nephrosis (bile nephrosis)

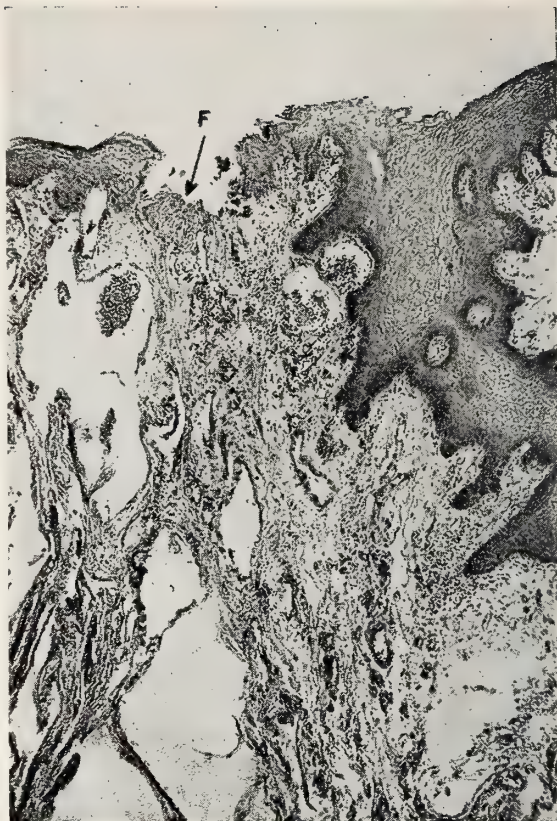


Figure 1. Photomicrograph of tongue showing dilated superficial subepithelial vessels and a small mucosal ulcer. One of the vessels opens into the base of the ulcer and its lumen is plugged with fibrin (F). Hematoxylin and Eosin. 100 x.

PATHOLOGIC DISCUSSION

Dr. Francis J. Tenczar, Jr., As Dr. Hartz indicated in his discussion, this patient did have hereditary hemorrhagic telangiectasia. In fact, the patient and her family have been reported previously in the medical literature¹. At autopsy telangiectatic lesions were found in the esophagus, stomach, and colon in addition to the clinically apparent sites. Figure 1 is a photomicrograph of a typical lesion from the tongue. This shows the dilated subepithelial vessels with the ulceration of the overlying epithelium. One of the dilated vessels opens into the base of the ulcer and at this point its lumen is plugged with fibrin. Such lesions readily explain the hemorrhagic phenomena characteristic of this disorder. No vascular anomalies were found in parenchymal organs.

The liver was small and weighed only 800 grams. The sectioned surface had a yellow cast

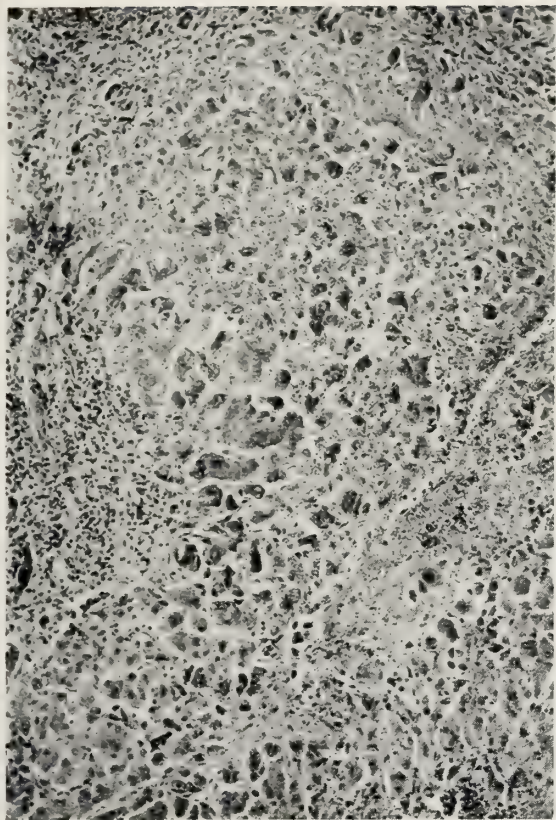


Figure 2. Photomicrograph of liver showing marked portal inflammation, parenchymal necrosis, and active cirrhosis. Hematoxylin and Eosin. 120 x.

and the parenchyma was soft and flaccid. The lobular markings were accentuated. Figure 2 is a photomicrograph of the liver showing the inflammatory reaction in the portal areas, lobular necrosis, and beginning cirrhosis. The cirrhotic changes indicate the patient's hepatitis antedated the clinical history of jaundice but the degree and activity of the cirrhosis do not suggest long standing liver disease.

The kidneys weighed 150 and 125 grams. There was slight irregular coarse scarring of both cortices. Sections revealed a yellow-brown parenchyma with a poorly defined corticomedullary junction. Microscopically bile casts as well as foci of tubular degeneration and regeneration were apparent. These findings account for the terminal oliguria and azotemia.

In addition to the interesting clinical and anatomic findings, this case is an excellent example of the complications of blood transfusion. During the course of many transfusions the following complications were observed.

1. Febrile and allergic reactions. These are

relatively common but, fortunately, are usually not severe. Allergic reactions are more common in patients with other symptoms of allergy.

2. Isosensitization to the Duffy (Fy^a) factor occurred and was responsible for at least one incompatibility reaction with coma. The possibility of sensitizing a patient to a blood group factor present in the donor's but absent in the recipient's erythrocytes exists with every transfusion. Subsequent transfusion of blood containing the same factor to a sensitized recipient may cause a fatal hemolytic transfusion reaction. In this case it is fortunate that the crossmatching procedure included a Coombs test on the donor's red cells after incubation with the patient's serum. This showed the first randomly selected donor to be incompatible and unmasked this patient's sensitization. The antibody was then identified as anti-Fy^a and subsequent transfusion of Fy^a negative blood was uneventful. Albumin and enzyme crossmatching techniques, while exceedingly valuable for the detection of the various Rh antibodies, will not detect anti-Fy^a.

3. Homologous serum hepatitis. The clinical and anatomic features of epidemic viral hepatitis and homologous serum hepatitis are identical. The possibility of epidemic hepatitis in this patient cannot, therefore, be excluded. However, the history of transfusion in this case implicates the virus of homologous serum hepatitis. The reported incidence of homologous serum hepatitis following blood transfusion alone varies from 0.16% to 0.8%.^{2,3}

Dr. Herbert M. Sommers: Was an attempt made to study the donor of the blood this patient received 14 weeks before her last admission?

Dr. Tenczar: Yes, but only with partial success. The donor contributed another unit of blood 8 weeks after the unit in question was obtained. The recipient of the second unit did not develop hepatitis during an ensuing 18 month period. The donor has not returned since the second donation.

With regard to the prophylaxis of homologous serum hepatitis it is unfortunate that there is no reliable test to detect carriers. Gamma globulin, although valuable prophylactically in infectious hepatitis, apparently does not protect against homologous serum hepatitis.

Dr. George M. Smetters: How often does isosensitization to the Duffy factor occur?

Dr. Tenczar: Race and Sanger⁴ state that

many examples of anti-Fy^a have been found since the discovery of the Duffy blood group system in 1950. Several were associated with transfusion reactions with at least one fatality. In addition to the present patient the Blood Bank of Chicago Wesley Memorial Hospital has detected two other examples of anti-Fy^a in the past two years. In both anti-Rh₀(D) was also present.

Dr. Harold H. Malvin: Was the spleen enlarged?

Dr. Tenczar: The spleen weighed only 175 grams.

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The cemetery reflects the history of medicine

To say that an interesting chapter of the history of medicine can be read in many an old cemetery, may seem a bit strange; nevertheless, it is true. If we remind ourselves that our word cemetery is derived from the Greek word which meant "a place of going to sleep," and then, with this in mind, enter one of the older cemeteries to reflect upon the stories of those who have gone to sleep there, we shall harbor some significant thoughts. What attracts one's attention first are the numerous, the too numerous rows of small stones, which mark the graves of infants and children — mute, hardly legible, symbols of the tragedies that awaited these little ones on the very day they were born. Arrayed beside the grave of their young mother, it is not unusual to find the graves of her infants and young children, two, three, sometimes four. In one of these nearby old cemeteries, there is the grave of a young woman who died at the age of 23 years,

and who, as her stone informs us, was carried off by smallpox. Another thing worthy of notice is the ages of the adults, many of them under 50, and then a minority over 70 years of age. One notices, too, that alongside the more recent stones of adults, the little stones are mostly absent. *Editorial. Luckily I Have Always Enjoyed Good Health. Rhode Island M.J. Jan. 1958.*

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Albert Schweitzer

In counseling both parents and children, it is most important to inspire them to effort. Dr. Albert Schweitzer has expressed this as follows: "Whatever you have received more than others in health, in talents, in ability, in success, in a pleasant childhood, in harmonious conditions of home life, all this you must not take to yourself as a matter of course. You must pay a price for it. You must render in return an unusually great sacrifice of your life for other life." *Ruth Shrang, Ph.D. Counseling Parents of Gifted Children. Minnesota Med. Sept. 1957.*

EDITORIALS



The national intern matching program 1958

Prior to the turn of the century American medical education took little interest in patient contact and responsibility as part of the preparation for the practice of medicine. This lack of interest was reflected in the development of the internship as a responsibility of the hospital, rather than of the medical school. Now, more than half a century later, the internship continues as a hospital responsibility. This tradition remains even though participation in and responsibility for patient care constitute a large part of the medical student's education, and approximately half of this country's internships are in medical school controlled hospitals.

Today, with hospitals, medical students, and medical schools as concerned as they are about the internship, it should be of interest to review the history of this problem.

It was not until 1904 that the American Medical Association gave official recognition to the internship. The first list of hospitals approved for internship training was not published until 1914. By 1926 the number of available internships began to exceed the number of medical graduates available. Since then, with each succeeding year, this disparity has increased until now the annual number of internships is nearly twice the number of graduates available. As a result of this, the development of intense

competition was inevitable between hospitals, and the resultant pressures upon medical students to accept internships. As these pressures grew, it was equally inevitable that the medical schools should take an increasing interest in helping their graduates obtain good internships, and this under conditions where their choices could not be distorted by unsought and unreasonable competitive pressures.

The medical schools tried many approaches to this problem, at first on their own and later in co-operation with the organized profession and hospitals. These early efforts were of no avail until 1950, when Dr. F. J. Mullins, of the University of Chicago, suggested a nationwide plan for matching student and hospital choices under circumstances that would leave both parties free to make their choice without pressures and premature commitments. The decision to try the plan was quickly made by all concerned: Organized hospitals, the medical profession, medical schools, and students. The first year's trial was so successful, Dr. Mullins' plan has been adopted as standard practice.

The agency now responsible for the administration of the plan is known as the National Intern Matching Program-NIMP. This is an independent corporation, governed by a Board of Directors. Organizations represented are the American Hospital Association, American Medical Association, American Protestant Hospital Association, Association of American Medical

Colleges, Catholic Hospital Association, Student American Medical Association, and one medical student representing the medical student body at large. The Army, Navy, Air Force, Veterans Administration, and Public Health Service have liaison membership upon the Board.

The mechanism of the plan, while complicated in execution, is simple in theory. NIMP acts as a clearing agency. Each participating student submits a confidential list to NIMP, ranking the hospitals where he has applied for internship, in the order of his preferences. He applies for any internship that interests him. Each participating hospital also submits a confidential list, ranking the students who have applied, in the order of its preferences. NIMP then matches the student with the internship he rates the highest, so far as is possible, in view of the hospital's relative evaluation of the student applicant.

In the 1958 program just concluded, 6,705 United States and Canadian students and 819 hospitals participated. There were 11,958 intern positions involved. Of the 6,705 students, 72.9% received intern appointments of their first choice, 13.1% second, 5.4% third, 5.1% fourth or lower and 3.5% were unmatched. In addition, 376 foreign educated students participated, of which 224 were matched and 152 unmatched. Of the 819 participating hospitals, 125 completely filled their quotas, 230 filled from 99% to 50%, 99 from 49% to 25%, 87 from 24% to 1%, and 278 none. This means that while relatively few students may not have received an appointment through the matching program, sufficient opportunity remains so that they have no difficulty in gaining good appointments.

So long as the great disparity exists between the number of students available for internships and the number of internships open to students, it should be obvious that no plan can satisfy all quotas. In the face of this situation, since the internship exists primarily for the educational good of the students, it is fortunate that NIMP, which preserves the freedom of both students and hospitals to explore their mutual interests in the making of their selections, has established itself as the procedure most acceptable to all concerned. As an example of co-operation between thousands of individuals, hundreds of institutions, and a variety of organized agencies—all with differing viewpoints—the success of the

National Intern Matching Program, an instrument of their own creation, is an accomplishment worthy of note.

Ward Darley, M.D.

Executive Secretary

National Intern Matching Program

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The surgical treatment of facial paralysis

Isolated paralysis of facial muscles usually is due to some condition affecting the facial nerve in its peripheral course. The most common is the so-called rheumatic type, or ordinary Bell's palsy. A variety of neurotropic viruses may affect the facial nerve, even before involving other portions of the central or peripheral nervous system. Virtually all these palsies are transient.

Cerebellopontile angle tumors (acoustic neuromas) may cause facial palsies primarily or as a result of sacrifice of the nerve in their removal. Radical removal of parotid gland tumors or mastoid surgery also may disrupt the facial nerve as may trauma from gunshot wounds or basilar skull fractures.

Ordinary Bell's palsy usually recovers spontaneously. But much can be done to aid healing and preserve function of the facial muscles through proper splinting of the face with simple adhesive bridges and electrical stimulation.

Some Bell's palsies do not improve and the same can be said of palsies resulting from division of the facial nerve. Sagging facial muscles can be supported through fascial slings carried from the temporal region to the corners of the mouth and eye. When properly done, this technique yields an excellent cosmetic effect but does not provide movement to the face. Nerve grafting at the time of taking out parotid lesions is of value.

Decompression of the facial nerve in its bony canal has been suggested as an aid to recovery in ordinary Bell's palsy. In many patients, the site of disruption of the facial nerve makes nerve grafting impractical even though an intact peripheral facial nerve exists as in paralysis occurring after eradication of an acoustic neuroma. In this situation, the peripheral portion of the facial nerve may be anastomosed with the central portion of another branch of the motor cranial nerves, such as the hypoglossal or spinal accessory nerve. In this procedure the function of the

hypoglossal or spinal accessory nerve is sacrificed for facial movement. Little or no disability follows the sacrifice of the hypoglossal nerve even though it leaves the tongue partially paralyzed. The patient may achieve satisfactory facial movement after a lapse of time. At first, it occurs only on attempted movement of the tongue but eventually, with re-education, facial movement becomes automatic, synchronizing with the normal side of the face.

Nicholas Wetzel, M.D.

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Etiology of gallstones

Wangensteen and his group* from Minneapolis suggest that the biliary ampulla be examined whenever the common bile duct is dilated at cholecystectomy. This group reviewed the records of 50 patients in whom the sphincter of Oddi had been inspected during surgery. The ampulla was so narrowed in 29 (58%), a three millimeter probe could not be passed into the duodenum through the sphincter. Partial obstruction of the biliary tree, distal to the site of stone formation, could be demonstrated in 5 of 6 patients with gallstones, whereas at autopsy, a small opening of the biliary papilla was observed in only one of 22 patients without gallstones.

With this background material, Wangenstein undertook a series of studies on dogs and other laboratory animals. Experimental stenosis of the ampulla was created and stones developed in the gall bladder even when bile remained free of bacteria. These studies suggest that anatomic narrowing of the internal common bile duct is a likely precursor of gallstones. If so, a reflux of pancreatic juice may contribute to the etiology.

*Surgery: 42:623-630 (Oct.) 1957.

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Unsaturated fatty acids

Fats are combinations of glycerine and various fatty acids. The latter are either saturated or unsaturated, depending upon the number of double bonds in their carbon chains. There are varying types of unsaturation referred to as "mono" or "poly" unsaturation.

The American diet contain a large amount of unsaturated fatty acid, mostly in the form of oleic acid, which is monounsaturated. Vegetable shortenings contain large amounts of oleic acid. The fatty acids found in cottonseed oil, soybean

oil, and corn oil are mainly polyunsaturated acids, specifically linoleic acid. These oils contain about 50 per cent of this substance. Shortenings, margarines, and lard may contain a small amount (10 or 12 per cent) and more saturated dietary fats such as butterfat, cocoa butter, coconut oil, and beef fat contain one to three per cent linoleic acid. Another source of fat in the diet is peanut butter. It contains 20 to 25 per cent linoleic acid, even when hydrogenated to prevent separation.

Linoleic, linolenic, and arachidonic acids have been regarded as the essential fatty acids and all are polyunsaturated. Linolenic acid is not prevalent in any of our common edible oils. Polyunsaturated acids are present in beef fat and lard and in certain marine fats and oils such as herring, cod, salmon, and sardine. Arachidonic acid is contained in mammalian tissues, notably heart, kidney, liver, and glandular tissues.

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An editorial from other journals—

Ergonomics

Designing an airplane cockpit calls for knowledge of bodily dimensions and of the posture that can be maintained most easily without fatigue. In addition the pilot must be protected against heat and cold and oxygen lack; he must be enabled to see around him; he must be supplied in a clear way with the information needed for control of the aircraft, with attention to the size and position of dials and their relation to each other, the size and shape of letters, numbers, and pointers, and the illumination of these instruments; and lever and controls must be suitably placed. In the study of such elements physiologists, anatomists, anthropologists, psychologists, and design engineers are all concerned.

A new quarterly journal, devoted to "human factors in work, machine control, and equipment design" bears the title *Ergonomics* — a word (not to be found in the Oxford English Dictionary) which the journal itself defines as "the customs, habits, or laws of work." Since the late war the results of ergonomic research have been applied increasingly in industry; but progress has been impeded by the scattering of relevant

reports throughout many different specialized journals.

The eight articles in the first issue of *Ergonomics*, which has an international board of editors, include contributions from America, Germany, and Holland. In an article of interest to all car drivers R. A. McFarland examines the problems of vehicle design. Members of the Harvard School of Public Health undertook anthropometric measurements on 370 lorry and bus drivers, which were used in assessing different vehicles; and in one of these vehicles it was shown that tall drivers could not operate the footbrake when the gear lever was in certain positions.

McFarland concludes that "the efficient and safe operation of motor vehicles is a function of the design of the equipment in relation to the characteristics of the operators." Any machine operated by man, he insists, can be regarded as an extension of man's sense organs and limbs. Once this concept is accepted, it is clear that the design of a machine should be from man outward. Indeed, wartime research showed that it was better to design equipment within the limits of human capacity than to try to match men to the demands of machines by selection and training.

Lancet, Dec. 28, 1957

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Medicine on postage stamps

Among recent issues of postage stamps of interest to physicians who are collectors are the following:

Belgian Congo—Three semi-postals were

issued for the benefit of the Red Cross.

Belgian East Africa (Ruanda Urundi)—Same as above.

Belgium—An 11f stamp in a United Nations series honors the World Health Organization and depicts a stylized world with a caduceus.

Cuba—A 4c stamp pictures Dr. Francisco Dominguez Roldan (1864-1942), a leader in the struggle for Cuban independence, who introduced radiology into Cuba in 1907.

Egypt—A stamp marked the first Afro-Asian Congress of Ophthalmology, a surtax going to the orientation and care of the blind.

Finland—Three stamps were issued for the benefit of the Finnish Tuberculosis Association.

France—Four physicians were honored in a Famous Frenchman series: Philippe Pinel (1745-1826), who advocated humane treatment of the mentally ill; Georges Vidal (1862-1929), who developed an agglutination test for typhoid; Charles Nicolle (1886-1936), who demonstrated that typhus is transmitted by the body louse; and Rene Leriche (1879-1955), who developed periarterial sympathectomy, arteriectomy, and ganglionic blocking by procaine.

Yugoslavia—A 2d stamp was issued in connection with antituberculosis week.

Laos—Four stamps marked the third anniversary of the Laos Red Cross.

United Arab Republic (formed by a union of Syria with Egypt early in February and later joined by Yemen)—The first stamp, a semi-postal, was issued in connection with the Cairo Afro-Asian Congress of Ophthalmology and shows an eye.

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CORRESPONDENCE



Clinics for crippled children listed for July

Twenty-one clinics for Illinois' physically handicapped children have been scheduled for July by the University of Illinois, Division of Services for Crippled Children. The Division will count 18 general clinics providing diagnostic orthopedic, pediatric, speech, and hearing examination along with medical social and nursing service. There will be 1 special clinic for children with cardiac conditions, 1 for children with rheumatic fever and 1 for cerebral palsied children.

Clinics are held by the Division in co-operation with local medical and health organizations, both public and private. Clinicians are selected among private physicians who are certified Board members. Any private physician may refer to or bring to a convenient clinic any child or children for whom he may want examination or consultative services.

- July 2 — Hinsdale, Hinsdale Sanitarium
- July 8 — East St. Louis, St. Mary's Hospital
- July 8 — Peoria, Children's Hospital (St. Francis)
- July 9 — Joliet, Will County T. B. Sanitarium
- July 10 — Cairo, Public Health Building
- July 10 — Springfield, St. John's Hospital
- July 10 — Sterling, Community General
- July 11 — Chicago Heights (Cardiac), St. James Hospital

- July 15 — Alton, Memorial Hospital
- July 15 — Danville, Lake View Hospital
- July 16 — Springfield (Cerebral Palsy), Memorial Hospital
- July 16 — Evergreen Park, Little Company of Mary Hospital
- July 17 — Elmhurst, Memorial Hospital of DuPage Co.
- July 17 — Flora, Clay County Hospital
- July 17 — Rockford, St. Anthony's Hospital
- July 22 — Quincy, St. Mary's Hospital
- July 22 — Peoria, Children's Hospital (St. Francis)
- July 23 — Aurora, Copley Memorial Hospital
- July 24 — Decatur, Decatur-Macon County Hospital
- July 24 — Mt. Vernon, Masonic Temple
- July 29 — Effingham (Rheumatic Fever), St. Anthony Hospital

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Editor honored

Northwestern University conferred a Merit Award on Harold M. Camp, June 14, "in recognition of worthy achievement which has reflected credit upon Northwestern University and each of her alumni."

The award was presented at the Alumni Day luncheon in Patten Gymnasium, Evanston.

Dr. Camp was graduated from Northwestern University Medical School in 1909, and served his internship at Englewood Hospital, Chicago. He settled in Monmouth, Ill. where he has



Harold M. Camp, M.D.

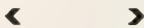
practiced since 1910.

Dr. Camp has been active in the Illinois State Medical Society since 1922, having served as Councilor from the Fourth District from 1922 to 1924, and Secretary of the Society since 1924. In 1941, he became Secretary-Treasurer of the Illinois State Medical Society and Editor of the Illinois Medical Journal.

He has served as a delegate to the House of Delegates of the American Medical Association on various occasions. During World War II, he was Illinois chairman for the procurement and assignment service of the War Manpower Commission.

He is past secretary for the Warren County Medical Society, and past president of the Monmouth Medical Club and Monmouth Rotary Club; a 32nd degree Mason, a member of Mohamed Shrine Temple of Peoria, the Elks' Club, and Chicago Athletic Association.

T. V. D.



Sponsors Israeli tour

The American Physicians Fellowship, Inc., 1330 Beacon Street, Boston 46, will sponsor a tour to the fourth World Medical Assembly of the Israel Medical Association in Tel Aviv, Haifa, Jerusalem, August 12-24.

ACS sectional meeting to be held in Stockholm

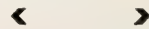
The latest developments and thinking in Sweden and North America on many of surgery's most pressing problems will comprise the program of the final 1958 sectional meeting of the American College of Surgeons, to be held for the first time in Stockholm, July 2-7. The Swedish Surgical Society will be host.

Visitors from America may arrange stopovers for clinical visits at Oslo and Gothenburg.

The meeting program will include hospital demonstrations, clinics, medical motion pictures, and panel discussions, symposia, and scientific papers in general surgery and the specialties of orthopedic surgery, obstetrics and gynecology, ophthalmology, otolaryngology, and urology.

Among those on the programs will be Drs. Warren H. Cole, Loyal Davis, Vincent J. O'Connor, Lester R. Dragstedt, Michael L. Mason, Ralph A. Reis, and Danely P. Slaughter, all of Chicago.

Further information may be had by writing to the American College of Surgeons, 40 East Erie Street, Chicago 11.



Chicagoans to participate in New England surgical meeting

Chicago surgeons will participate in the scientific presentations at the fourth annual Northeastern regional conference of the International College of Surgeons to be held in the Equinox House, Manchester, Vt., June 30-July 5.

Dr. Ross T. McIntire, executive director of the College, will give a paper on "Modern Advances in the Preservation of Red Blood Cells," and take part in a round table on "Human Experimentation and Surgery."

Two motion pictures will be shown by Dr. Philip Thorek, "Perforation of the Esophagus in a Sword Swallower" and "Incomplete Cholecystectomy." Dr. Thorek also will participate in a panel on "Priorities in Multiple Injuries," which will be moderated by Dr. Lorne W. Mason of Evanston.

The latest developments in the surgical specialties will be emphasized in the scientific program. The educational program will cover medical economics, estate planning, tax problems, and public relations. The meeting will present

an opportunity to combine professional activities with a vacation.

Further information may be had by writing to Dr. Ross T. McIntire, executive director, International College of Surgeons, 1516 Lake Shore Drive, Chicago 11, Ill.

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Use of BCG recommended for prevention of TB

The recent report of the Ad Hoc Committee of the surgeon general of the United States recommended BCG vaccination for certain groups recommended by the American Trudeau Society, the American College of Chest Physicians, the American Medical Association, and the Medical Advisory Committee of Research Foundation.

The groups listed by the American Trudeau Society are:

(1) Physicians medical students, and nurses who are exposed to tuberculosis; (2) all hospital and laboratory personnel whose work exposes them to contact with the bacillus of tuberculosis; (3) individuals who are unavoidably exposed to infectious tuberculosis in the home; (4) patients and employees in mental hospitals, prisons, and other custodial institutions in whom the incidence of tuberculosis is known to be high; (5) children and certain adults considered to have inferior resistance and living in communities in which the tuberculosis mortality rate is unusually high.

BCG vaccine may be obtained by any licensed physician in the United States and its territories by writing to Dr. Sol Roy Rosenthal, Medical Director of the Research Foundation, 70 West Hubbard Street, Chicago 10, Ill.

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Chest physicians to meet

The 24th annual meeting of the American College of Chest Physicians will be held in the Fairmont Hotel, San Francisco, June 18-22.

There will be symposiums, seminars, and forums on cardiology, congenital heart disease, biological effects of radioactive agents on the lungs, pulmonary diseases, basic research in diseases of the chest, and pulmonary and cardio-

logic effects of smoking, as well as individual papers.

A motion picture program will deal with diseases of the chest.

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Arthritis to be reviewed

The second Oklahoma Colloquy on Advances in Medicine, to be held at the University of Oklahoma School of Medicine, November 12-15, will be devoted to arthritis and related disorders. Twelve nationally prominent investigators will present results of original work.

The meeting will be sponsored jointly by the school's Division of Postgraduate Education and five pharmaceutical firms, Geigy Pharmaceuticals, Wyeth Laboratories, Upjohn Company, Pfizer Laboratories, and Schering Corporation.

Further information may be obtained by writing to the school, Oklahoma City, Okla.

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Bibliography to be issued

The third annual volume of the Bibliography of Medical Reviews will be published in June by the National Library of Medicine, Department of Health, Education, and Welfare. It will contain about 2,900 references to review articles in clinical and experimental medicine and allied fields which appeared largely in 1957. Copies may be obtained at \$1.25 from the Superintendent of Documents, U.S. Government Printing Office, Washington 25.

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Plan mental health meeting

The fifth annual conference of mental health representatives of state medical associations, sponsored by AMA's Council on Mental Health, will be held at the Drake Hotel, Chicago, November 21-22.

Group discussion topics will be:

(1) Emotional disturbance versus brain damage in the diagnostic categories of mental retardation or mental deficiency in school children; (2) communicability of mental disorders; (3) education for psychiatric medicine; (4) the Joint Commission on Mental Illness and Health—progress and problems; (5) mental illness and health in the aged.

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Partial pancreatic achylia

Carbohydrate absorption in the elderly seems relatively unaffected as compared to the young adult, but ability to digest complex carbohydrates may be lost to some extent. Of more significance is the decrease that one frequently sees in the elderly person's ability to digest and absorb proteins and, to a lesser degree, fat.

The exact explanation of this is open to question and at the risk of oversimplification I shall term it "partial pancreatic achylia" and shall further classify it as "functional" in the sense that little, if any, pathology is demonstrable. This has been so in the few cases that I have had an opportunity to see posted where there has been no history in the past that would suggest chronic pancreatitis. We use the term because while there is no history of pancreatic attacks in the past, a decrease in the ability to absorb protein properly can be demonstrated by the nitrogen tolerance test.

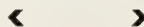
This test is quite simple and it might be wise to describe it in some detail. The patient is placed on a standard diet for three days and 24-hour urines collected, on which total nitrogen is determined. On the fourth day, in addition to the standard diet, the patient receives 300-400 grams of extra protein at breakfast in the form of lean beef and another 24-hour urine is collected. We feel that if less than 80 per cent of the extra nitrogen ingested is excreted in the fourth-day urine, it indicates a decreased pancreatic function.

Since there appears to be no explanation for this, we have termed it "functional pancreatic achylia" with the reservations I have already made. This deficiency responds well to various pancreatic extracts and to proteolytic enzymes derived from papaya juice. The latter would appear to have a theoretical advantage since it is active as an acid, a basic, or a neutral pH. These enzymes should be given before each meal or in the middle of the meal. There are many other ways to test pancreatic function. We prefer the test described because it is relatively simple and involves no elaborate chemical setup. Urinary nitrogens can be done in any laboratory that is prepared to do blood N.P.N. *Charles F. Wilkinson, Jr., M.D. Metabolic Problems in Geriatrics. Rocky Mountain M.J. Jan. 1958.*

Evaluating the physicians' plans

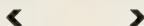
Voluntary health insurance as represented by the doctors' own plans was started and developed primarily with its service benefits feature as a public service to meet a recognized need and only secondarily as a means of playing the doctor. It is well to keep this order of precedence in mind. It is inconsistent with the public grant of licensure for the profession as a whole. However, once let the doctors' plan of voluntary health insurance for any reason fall behind the public's own estimate of whether the plan meets the public necessity or not, and the consequences could be prompt and devastating.

The Blue Shield plans of voluntary health insurance have provided such acceptable public service as far as they go, but obviously from the public's point of view they do not now go far enough. At least some provision must be made to cover diagnostic services. Most Blue Shield plans do not at present cover such services. They are the doctors' plans and the doctors' responsibility; not the responsibility of only some of the doctors. As doctors we must all hang together in providing adequate public service, or assuredly we will all hang separately. *Editorial. New York J. Med. Feb. 1, 1958.*



Patient errors

Sometimes the patient makes mistakes — often deliberate — about the distribution of his lesions; or he may fail to mention that patch of psoriasis on his abdomen which would give us the clew to his extremely scurfy scalp; or he may be satisfied in his own mind that his broad syphilitic condylomata are really piles, and that this is neither the time nor the place to discuss anything except his distressing and abrupt loss of hair. Or perhaps the old lady may be concealing huge chronic leg ulcers; they are being treated by her kindly neighbor with some penicillin cream, so that what presents to you as an eczema of the face really is a sensitization eruption. *R. E. Bowers, M.D. Disappointments in Dermatology. Lancet Jan. 4, 1958.*



A man with a surplus can control circumstances, but a man without a surplus is controlled by them, and often he has no opportunity to exercise judgment. — Harvey S. Firestone

AT THE EDITOR'S DESK



AET. Aminoethylisothiuronium bromide hydrobromide (AET) protected mice against a dose of nitrogen mustard that would ordinarily kill 50 per cent of the animals. It had no demonstrable effect on the tumors. This may represent the basic research responsible for the recommendation that AET be used as a pre-treatment drug when large doses of nitrogen mustard are necessary.

LABELING FRUIT. New FDA regulations may allow placards to be used on retail displays of bulk citrus fruit showing that the fruit has been treated with a preservative without naming the chemicals employed. This action stems from a petition of some grower organizations that say it is impracticable to mention on the label the preservatives used in bulk fruit. This is understandable because retailers frequently have several lots of citrus fruits that had different preservative treatments. The ruling does not apply to citrus fruit in crates or net bags.

ABOUT FACE. It was bound to happen. Dr. Arthur J. Grossman of New York Medical College prefers butabarbital sodium to other sedative agents, such as tranquilizers and calmatives. In his words, butabarbital sodium "most closely approaches the ideal."

POLIO VACCINE. The Belgian government is ready to export a Salk vaccine to the United States which they claim is an improvement over ours. Tests show that after the second injection

the vaccine is 75 per cent effective against the first type of polio, 97 per cent against the second, and 88 per cent against the third. After the third injection, 90 per cent of the children were completely immune. Only one case in 25,000 showed any allergic reaction, while only one in 2,000 showed local reactions that soon disappeared.

CANCER PRODUCING AGENTS. Scientists of the National Institutes of Health have found that the cancer producing agent they discovered two years ago has the biological and physical properties of viruses. The agent produces multiple tumors in mice and hamsters.

SLEEP. Henry B. Laughlin, Washington, D.C. scientist, mentions in *News from Ciba* that anxiety can cause people to oversleep to escape their problems. Most of us regard anxiety as a cause of insomnia. He has observed individuals who sleep in order to escape emotional tension and use the period to recover from the conflicts of the day. This is understandable for those who have a healthy orientation toward sleep.

STATISTICS. Early statistics from the National Health Survey program show that the average citizen sees his physician five times a year. The majority of patients go to the office; while home calls account for less than 10 per cent. Urbanites consult the physician more often than rural inhabitants. Two-thirds of the visits were for diagnosis and treatment, while the remainder in-

volved preventive care such as immunization, pre- and postnatal care. Females made 5.5 office calls per year as against 3.9 among males.

PHARMACEUTICAL CHITCHAT. F-D-C Reports list the following "big 10" of the pharmaceutical industry: Lilly was first with almost \$200 million volume; followed by Parke-Davis, Lederle, Upjohn, Wyeth, Merck-Sharp-Dohme, Pfizer, Squibb, Abbott, and Smith-Kline-French.

The American Pharmaceutical Manufacturers' Association has merged with the American Drug Manufacturers' Association. The new organization will be called the Pharmaceutical Manufacturers' Association.

The Borden Company is diversifying. It has acquired Marcelle Cosmetics, Inc. to join the Mull-Soy pharmaceutical division. Does this mean that Elsie the Cow will appear with lipstick, eye shadow, and a curl to her tail?

NEW. Pulmonary alveolar proteinosis is the latest lung disease. It was reported from the Armed Forces Institute of Pathology as characterized by the appearance of glandular proteinaceous material within the alveoli. Most of the victims have had dyspnea, cough, fatigue, and loss of weight for many years' duration. The disorder is thought to be caused by an injurious inhalant such as insecticides, detergents, plastics, or other products of recent origin.

Dr. John Gardner, a Long Beach, California, public health officer found that a single Kwell shampoo eliminated all lice and eggs from the hair of 83 per cent of a group of infested children. One or two additional washings cleared up the remainder. Kwell shampoo contains gamma benzene hexachloride and a detergent that penetrates the infested areas. Each treatment consists in wetting the hair, lathering for four minutes, and rinsing thoroughly. To date this is by far the simplest treatment of pediculosis capitis.

"Poison Proofing Your Home" is Johnson & Johnson's new public service brochure. It dramatizes the problem of accidental chemical poisonings in children, lists common household products most responsible for poisonings, suggests

ways of preventing such occurrences, points out how to recognize poisoning symptoms, and provides rules to be applied should the child accidentally take poison or an overdose of drugs. Single copies of the brochure may be obtained free of charge by writing to "Poison Proofing Your Home," 130 East 59th St., Room 800, New York 22, N.Y.

A new synchronized flash 35 mm. still picture color camera was introduced for endoscopic pictures. The photography can be through open-tube endoscopes, of body cavities, and of small field surgical and close-up work. The image on the film is nearly life size, showing all the fine detail that can be seen with the naked eye. According to Brubaker, Inc. the camera fills the gap between ordinary close-up photography and photography through the microscope. It should be of value to those specializing in ENT, proctology, gynecology, and dermatology.

The relationship between cholesterol and atherosclerosis is beginning to have repercussions in the food and pharmaceutical industries. Emdee margarine is Pitman-Moore's new table spread and cooking fat derived from corn oil. It is rich in linoleic acid, currently enjoying a high position among anticholesterol agents.

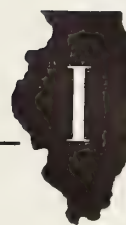
Chux is Johnson & Johnson's new disposable underpad for the bed-soiling problem.

Persistin, a combination of aspirin and salicylsalicylic acid, is a long acting analgesic designed to offer night-long relief for arthritics. It is said to relieve pain and morning stiffness.

ProBilagol, The Purdue Frederick Company's new physiologic biliary digestive tonic, contains D-Glucitol and homatropine methylbromide for synergized cholecystokinetic cholagogue action. It is designed to achieve comfortable digestion even of foods not previously tolerated. In a report by H. S. Tirsch, medical director of the company, the following comment is made: "ProBilagol is aimed at helping the 1 to 3 million persons who have difficulty eating and digesting fats, eggs, chocolate, and other similar foods because they suffer from an insufficient flow of bile from the gall bladder."

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NEWS of the STATE



COOK

ALUMNI. The University of Illinois Medical Alumni Association held a medical refresher and reunion May 24. The guest speaker for the evening was Dr. William H. Hazlett, who showed movies of a big game hunt in Africa.

ASSEMBLY. The Department of Otolaryngology, University of Illinois College of Medicine, announces its Annual Assembly in Otolaryngology September 29 - October 5. The assembly will consist of a series of lectures and panels concerning advances in otolaryngology, and evening sessions devoted to surgical anatomy of the head and neck and histopathology of the ear, nose, and throat. Interested physicians may write directly to the Department of Otolaryngology, 1853 West Polk St., Chicago 12.

NOTICE. Dr. L. J. Meduna announced his resignation as president of Brain Research, Incorporated, effective April 1.

HONORED. Dr. Samuel J. Hoffman, executive director of Hektoen Institute for Medical Research of the Cook County Hospital, was honored at the 15th anniversary celebration of the Institute, May 17, at the Drake Hotel. A group of physicians and civic leaders presented a research fellowship to the Institute in his name.

The Ricketts prize, awarded by the University of Chicago for outstanding contributions to medicine, was presented to Dr. Rene Jules Dubos, a pathologist with the Rockefeller Institute for Medical Research, on May 12. The award was

established in memory of Dr. Howard T. Ricketts, University of Chicago bacteriologist. Dr. Dubos developed a quick method for growing tubercle cultures, a technique used in diagnosing tuberculosis.

MEETINGS. The annual meeting of the American Medical Women's Association, Branch No. 2, was held May 14. The program consisted of installation of officers, committee reports, and a travelogue on Japan, Thailand, and Cambodia.

The Chicago Neurological Society met May 13. The presidential address was given by Oscar Sugar; short talks included "Dyschondroplasia" by Louis D. Boshes, and "Dermatomyositis" presented by Joel Brumlik.

INTERNATIONAL COLLEGE OF SURGEONS. The first congress of the European Federation, International College of Surgeons met in Belgium May 15-18. The Belgian section of the College was host of the meeting which took place at the Brussels Universal and International Exhibition of 1958. Francis D. Wolfe, M.D., Chicago, instructor in surgery, Northwestern University Medical School; and senior attending staff, Chicago Wesley Memorial Hospital spoke May 15 on "Diagnosis and Management of Anorectal and Colonic Fistulas." He was presiding officer on May 16, and also moderator of a panel, "Management of Cancer of the Colon, Rectum, and Anal Canal." Among other Chicago physicians attending the Congress were Drs. Max Thorek, Ross T. McIntire, John B. O'Donoghue, Alfred Strauss, and Edward Warszewski.

AMERICAN COLLEGE OF SURGEONS. Dr. Robert L. Schmitz is chairman of the Advisory Committee on Local Arrangements for the 1958 Congress of the American College of Surgeons which will convene in Chicago October 6-10. Dr. Frederick W. Preston is secretary, and members are Drs. Cornelius M. Annan, M. Fletcher Austin, Thomas G. Baffes, John L. Bell, Walter W. Carroll, Dwight E. Clark, T. Howard Clarke, John B. Condon, David N. Danforth, Carl Davis, Jr., Frederic A. DePeyster, Walter F. Dillon, Tilden C. Everson, Paul F. Fox, and John L. Grout. The 44th Congress is the twelfth to take place in Chicago. The first was held in 1910.

GUEST SPEAKER. Dr. Michael L. Mason, Chicago, spoke on "Management of Tendon Injuries," April 30 at the clinical pathological conference of the Nebraska State Medical Association's 90th Annual Session.

DeKALB

MEETING. The DeKalb County Medical Society held a meeting, May 27, at the DeKalb Medical Center. Lloyd G. Struttman, Ph.D., director of medical consulting, Nuclear Consultants, Inc., spoke on "Medical Use of Radioisotopes in a Small Hospital."

DuPAGE

MEDICAL CENTER. Hinsdale's new medical center and health museum was opened officially on May 10. The health museum, one of only four in the United States (older ones are situated in Cleveland, Philadelphia, and Dallas), complements the adjoining medical center, recently built and equipped by the Kettering Family Foundation at a cost of \$1,500,000. A dentist from the medical center may escort a youngster into the museum to show him how to brush his teeth correctly, and what could happen to his molars if he neglects them. A doctor may allay a heart patient's jitters by showing him exactly what happens when he gets an electrocardiogram.

The Hinsdale Medical Center, of which the museum is a part, has offices for some 50 practicing physicians, surgeons, and dentists, an X-ray laboratory, an optical dispensary, a stenographic service, and a comprehensive medical library, in addition to the museum and theater.

FULTON

MEETING. The Fulton County Medical Society met May 9 at Graham Hospital. Dr. Martin

Sloane, superintendent of East Moline State Hospital spoke on "Medico-Legal Aspects in Psychiatry."

HENRY

Mr. Walter L. Oblinger of Springfield, associate counsel of the Illinois State Medical Society addressed a joint dinner meeting of the Henry County Medical and Bar Associations in Galva, May 15. Mr. Oblinger, a former F.B.I. agent, is editor of the Springfield Newsletter, a legislative medical service. He spoke on "Medico-Legal Aspects of Treatment in Accident Cases" and showed the film, "The Doctor Defendant."

KANE

MEETINGS. On June 11, there was a meeting of the Kane County Medical Society at the Dunham Woods Riding Club. The speaker was Joseph Christian, M.D., associate professor, department of pediatrics, Stritch School of Medicine. His subject was "Poison Control Center." Dr. Christian was a "founding father" of the Chicago Poison Control Center and he may well sow the seeds for such a center in Kane County.

On October 8, the Society's meeting will be at the Dunham Woods Riding Club and Frederick A. Gibbs, M.D. will speak on "The E.E.G. in Medical Practice." Dr. Gibbs is a recognized pioneer in the use and interpretation of the electroencephalogram and this program should be of exceptional value.

LAKE

MEETING. The Lake County Medical Society held a meeting, May 13, at the Deerpath Inn, Lake Forest. Dr. Thomas T. Myers, Mayo Clinic, spoke on the "Treatment of Varicose Veins."

McLEAN

TALK. Dr. James H. Hutton of Chicago, a past president of the Illinois State Medical Society, was the speaker at a joint dinner meeting of the McLean County Medical Society and its Woman's Auxiliary in the Rogers Hotel, Bloomington, May 13. His subject was "Medical History."

SANGAMON

NEW POSITION. Arthur M. Lindsay, M.D., who was a surgeon with the Springfield Clinic has joined the medical staff of the Eli Lilly and Company. As a member of the medical editorial

department, Dr. Lindsay is assisting in the preparation of the "Physician's Bulletin," journal for physicians published eight times a year by Lilly. He also writes, reviews, and edits other Lilly medical publications.

GENERAL

PSYCHOANALYSTS' MEETING. The Academy of Psychoanalysis held its spring meeting on May 11, in San Francisco. Roy R. Grinker, M.D. Chicago, was chairman of a symposium on The Family Approach in Psychoanalytic Therapy; and Jules H. Masserman, M.D., Chicago, was chairman of the afternoon session.

SERIES OF MEETINGS. Dr. Otto L. Bettag, director of the Illinois Department of Public Welfare, conducted a series of meetings last month at five state mental hospitals for county public assistance workers of the Illinois Public Aid Commission. Purpose of the meetings was to better acquaint the IPAC staff with problems of mental illness and mental retardation. The new program involving transfer of patients from state hospitals to public assistance rolls in their home counties was announced. The meetings consisted of talks by the hospital superintendent, clinical director, and chief social worker, each giving a broad outline of the scope of their work within the hospital. It was followed by a joint discussion between Illinois Public Aid Commission representatives and the state hospital staffs regarding the means of facilitating referrals of state hospital patients for public assistance.

LECTURES ARRANGED BY THE ILLINOIS STATE MEDICAL SOCIETY:

JOSEPH J. BERTUCCI, clinical associate in pediatrics at Stritch School of Medicine of Loyola University, addressed St. Monica's Guild of St. Christopher's Church in Oak Park, May 6, on "Behavior Problems of Small Children."

YOUTH WEEK Speakers:

OLIVER W. CRAWFORD, member of the staff of the Children's Memorial Hospital, Webster School, May 13, on "Hints to Healthy Living."

FRED V. HEIN, PH. D., Consultant in Health and Fitness, Bureau of Health Education, A.M.A., Bryant School, May 14, on "Teen Age Tips on Health."

LAWRENCE D. ELEGANT, member of the staff of the Sarah Morris Hospital for Children, Sherman School, May 15, on "Getting Along With Others."

DONALD A. DUKELOW, Consultant in Health and Fitness, Bureau of Health Education, A.M.A., Eli Whitney School, May 15, on "Hints to Healthy Living."

THOMAS P. SALTIEL, clinical assistant professor of pediatrics, University of Illinois College of Medicine, Louisa May Alcott School, May 16, on "Hints to Healthy Living."

PAUL K. ANTHONY, clinical associate in pediatrics, Stritch School of Medicine of Loyola University, Altgeld School, May 16, on "Health and Happiness."

DANEY P. SLAUGHTER, associate professor of surgery, University of Illinois College of Medicine, addressed the Bureau County Medical Society in Spring Valley, May 13, on "The Problem of Surgical Jaundice."

WILLIAM H. LANGEWISCH, JR., Rockford, member of the staff of the Rockford Memorial Hospital, addressed the Stephenson County Medical Society in Freeport, May 15, on "Epidemics of Bacterial Infections in the Newborn."

EDWARD MASSIE, associate professor of clinical medicine, Washington University School of Medicine, St. Louis, addressed the Jefferson-Hamilton County Medical Society in Mount Vernon, May 29, on "Medical Aspects of Cardiovascular Surgery."

FLOYD S. BARRINGER, Springfield, member of St. John's and Springfield Memorial Hospitals, addressed the Montgomery and Macoupin County Medical Societies in Litchfield, June 11, on "Diagnosis of Lesions of the Brain."

COYE C. MASON, clinical associate professor of pathology, University of Illinois College of Medicine, will address the Kankakee County Medical Society in Kankakee, June 17, on some subject in pathology.

SIDNEY W. ROBIN, member of the pediatrics staff of the Michael Reese Hospital, will address the "WHIMS" (Women Helpers in Mutual Sharing), June 18, on "Problems of Parenthood."

DEATHS

CHARLES R. BENNER*, Chicago, who graduated at Northwestern University Medical School in 1905, died April 29, aged 78. He had been a member of the staff of the Englewood Hospital for 50 years.

FRANCIS V. CARBERRY*, Chicago, who gradu-

*Indicates member of the Illinois State Medical Society.

ated at the University of Illinois College of Medicine in 1913, died April 15, aged 67. For the last 37 years he had been medical examiner for the Metropolitan Life Insurance Company.

CHARLES E. ERICSON*, Quincy, who graduated at the College of Physicians and Surgeons of Chicago, School of Medicine of the University of Illinois, in 1904, died February 5, aged 78, of arteriosclerotic heart disease. He was a member of the staff of the Blessing Hospital.

THOMAS JONATHAN COLE, Chicago, who graduated at Howard University College of Medicine, Washington, D. C., in 1928, died February 17, aged 55, of portal cirrhosis with esophageal varices.

GEORGE F. CUMMINS*, Metropolis, who graduated at Northwestern University Medical School in 1920, died April 29, aged 64. He had served as Massac County Coroner for 14 years.

ANDREW GANSEVOORT*, retired, Chicago, who graduated at Rush Medical College in 1903, died February 24, aged 86, of coronary occlusion. He was associated with Roseland Community Hospital.

GEORGE F. GATES*, Chicago, who graduated at Bennett Medical College, Chicago, in 1913, died April 1, aged 72. He had practiced medicine over 40 years in Chicago.

WESTON A. GUI, Evanston, who graduated at Northwestern University Medical School in 1951, was shot and killed by a patient January 31, aged 37. He had served in the medical corps of the U. S. Army Reserve.

AIME PAUL HEINECK, retired, Chicago, who graduated at Northwestern University Medical School in 1896, died April 8, aged 88.

CLARA JACOBSON*, Chicago, who graduated at Rush Medical College in 1913, died April 13, aged 70. She was chief physician in the Municipal Tuberculosis Clinic in the Grand Crossing area, and had been a member of the staff of the South Shore Hospital for 40 years. She held a Ph.D. degree from the University of Chicago and was a life member of its alumni association.

DARWIN KIRBY*, Champaign, who graduated at Northwestern University Medical School in 1907, died in the Norbury Sanatorium in Jacksonville, February 15, aged 74, of coronary oc-

clusion and general and cerebral arteriosclerosis. He was a member of the Industrial Medical Association, and past-president of the American Association of Railroad Surgeons.

ADOLPH KRAFT*, Chicago, who graduated at the University of Illinois College of Medicine in 1922, died April 15, aged 62. He was a member of the staffs of St. Anne's, Loretto, Oak Park and Belmont Hospitals.

JOHN MILTON MOORE, Chicago, who graduated at McGill University Faculty of Medicine, Montreal, Quebec, in 1893, died February 2, aged 89, of arteriosclerotic heart disease, generalized arteriosclerosis, and hypertension.

ADOLPH J. NEWMAN, retired, Hinsdale, who graduated at Bennett Medical College in 1910, died April 4, aged 73, in Hines Veterans Hospital, where he was a staff member until his retirement two years ago.

CHARLES P. SCHELL*, retired, Chicago, who graduated at the College of Physicians and Surgeons of Chicago, School of Medicine of the University of Illinois, in 1905, died April 10, aged 85. He was a former member of the staff of St. Mary of Nazareth Hospital.

CHARLES G. SLANEC*, Chicago, who graduated at the Chicago Medical School in 1922, died April 10, aged 67.

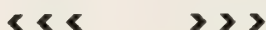
CHARLES ENION SMITH*, Chicago, who graduated at Loyola University School of Medicine in 1918, died April 21, aged 70. He was a member of the staff of the Ravenswood Hospital.

MAURICE R. THORNBURG, retired, Chicago, who graduated at Northwestern University in 1924, died April 6, aged 63. He had practiced medicine on Chicago's south shore for 27 years.

ARTHUR A. WALLERSTEIN*, Chicago, who graduated at Kaiser-Wilhelms-Universität Medizinische Fakultät, Strassburg, in 1902, died April 26, aged 79. He was a member of the staff of the Edgewater Hospital.

FRANKLIN S. WILSON*, retired, Chicago, who graduated at the University of Illinois College of Medicine in 1911, died April 10, aged 85. He was assistant professor of medicine emeritus at his Alma Mater, and a former member of the staff of the Garfield Park Hospital.

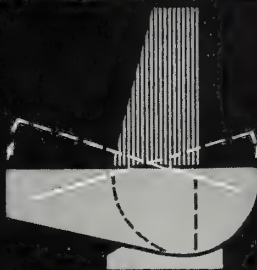
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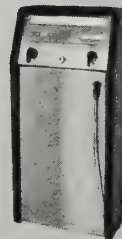
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BOOK REVIEWS



THE MEDICAL WORLD OF THE 18TH CENTURY.

By Lester S. King, M.D. \$5.75. 346 Pp. Chicago: The University of Chicago Press, 1958.

The author makes his readers live in 18th century medical circles and enjoy it. Many of the best known practitioners of the times are introduced — the prototypes of our present specialists and general physicians. London had about 1,000 apothecaries at the time of Queen Anne's reign. Because of the competition they did not restrict themselves to filling prescriptions and selling drugs, but practiced medicine also. This caused stormy protests from the College of Physicians which numbered only 114 members.

Originally it took 14 years at Oxford to obtain a medical degree. Hospitals were not available to the students for practical instruction and upon graduation their credits were mainly in the classics. The University of Edinburgh was an outstanding new medical school, but it, as well as other Scottish universities, granted medical degrees *in absentia*. A clever manipulator could make his patients believe his diploma mill certificate had been honestly acquired. Many of the best physicians trained at Continental schools — Leyden, Paris, Montpellier, Bologna, Padua, or Rome.

John Wesley, the founder of Methodism, wrote a medical text "Primitive Physick," in 1747 when he was 44 years old. In his lifetime he saw

23 editions and seven followed in America. As an empiric, Wesley felt his book would bring the healing art within the reach of all and the price was only one shilling. The purchaser received a series of remedies under various diagnostic heads. After self-diagnosis, he could try any of a number of the prescriptions until he found one helpful to his ailment.

George Berkeley, the English philosopher, thought disease was largely a matter of obstructed blood flow and advocated medicinal use of tar water based on experimental data. The mountebank, who still survives as the patent medicine vendor of present day carnivals, was always an itinerant and put on a good show of his cures. In recounting stories of worthy examples Sir William Read, Chevalier John Taylor, Joshua Ward, and James Graham, the author injects enough humor to make them unforgettable characters.

Hermann Boerhaave, the systematist and scientist was the most influential physician of the 18th century. His work laid the foundation for much of the material that follows.

Today cardiovascular diseases and cancer are responsible for the greatest number of deaths, while in the 1700's the number one killer was fever. Febrile disease took different forms and in many instances was expressed in terrifying epidemics. As a result by the close of the century,

(Continued on page 60)

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BOOK REVIEWS (Continued)

the factors responsible for these outbreaks were subjected to speculative questioning. This gave rise to a renaissance in medical science. In *Similia Similibus*, the doctrine that one disease is cured by another similar to it, is a memorable account of the life of Samuel Hahnemann, the father of homeopathy. Among the numerous attempts to classify disease we find the outlines of Linne, Sauvages, Cullen, Darwin, Pinel, and Rush.

Medical ethics was greatly influenced by the complicated changes in social, economic, and scientific advances of the 18th century. A solid foundation was laid for modern pathology through the blending of the well defined ideas of Morgagni, Hunter, and Bichot. The author concludes: "The practice of medicine changes constantly, just as does the art of painting or of architecture. But the soul of the artist does not significantly change, nor does the soul of the doctor."

C. B.

HORMONES IN BLOOD. G. E. W. Wolstanholme,

M.D. and Elaine C. P. Millar. Vol. XI. Ciba Foundation Colloquia on Endocrinology. \$9.00. Pp. 416, illustrations 74. Boston: Little, Brown & Co., 1957.

This is a scholarly exposition concerning the important aspects of endocrinology explored by an international group of experts. The symposium of 21 papers presents advances made in the study of the biological assays of hormones in the blood; particularly from the pituitary, thyroid, adrenals, and pancreas. The papers center largely around two major aspects of the field; 1) the mechanism by which hormones are transported in the blood, and 2) methods for measuring hormone levels in the blood. Many of the papers are highly technical and presuppose a good knowledge of the physiology and biochemistry of hormones. They are written for experts by experts and will prove difficult reading without some background in the physiology and chemistry of hormones. The student of endocrinology will find this volume of inestimable value and the experimental physiologist and

(Continued on page 66)



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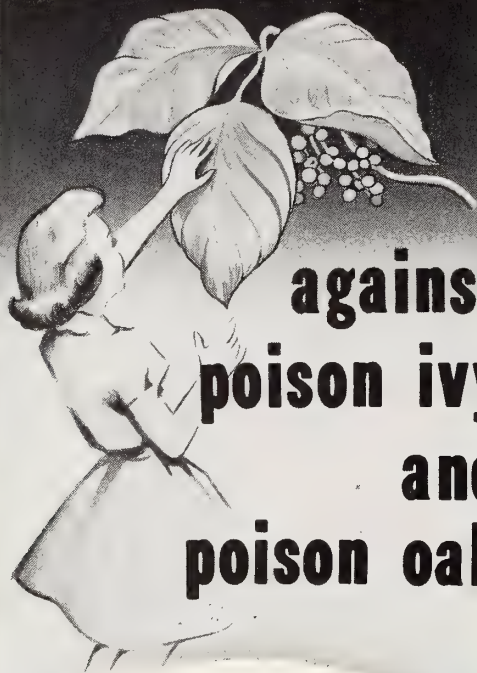
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BOOK REVIEWS (Continued)

biochemist will find ideas for future research. There is a complete coverage of the often spirited discussion following the formal presentation of the papers by recognized authorities in endocrinology.

L. R. L.

< >

TEXTBOOK OF GYNECOLOGY. John I. Brewer, M.D. 2nd, ed. \$15.00. Pp. 742, Baltimore: Williams & Wilkins, 1957.

This book approaches the subject from the standpoint of symptoms, the process the physician must use in the daily practice of gynecology. The material is presented along the lines of growth and development of the female. Part I deals with symptoms and findings in gynecology during childhood, maturity, and aging. Part II deals with discussion of the major entities in gynecology. The chapters on carcinoma of the cervix and endometriosis give much detail. Pathogenesis is elaborated. Numerous and extensive references are appended to each chapter. The index is adequate. Recent medical advances and newer aspects of gynecology have been incorporated into this second edition of a book that provides a convenient reference work.

C. P. B.

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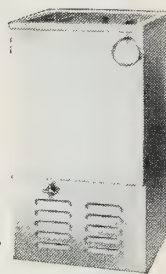
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1. Russek, H. I.: Postgrad. Med. 19:562 (June) 1956.

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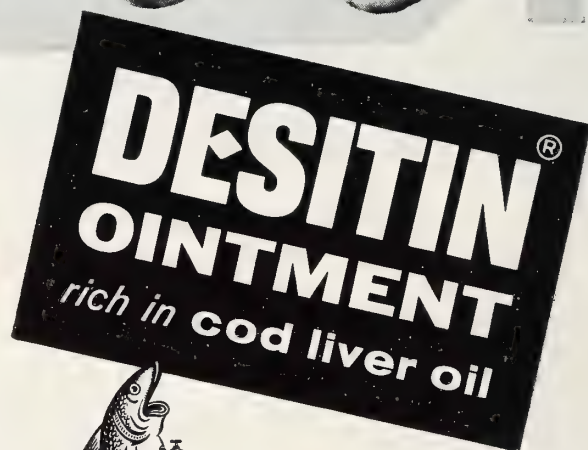


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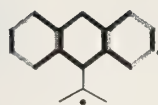
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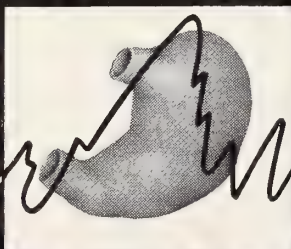
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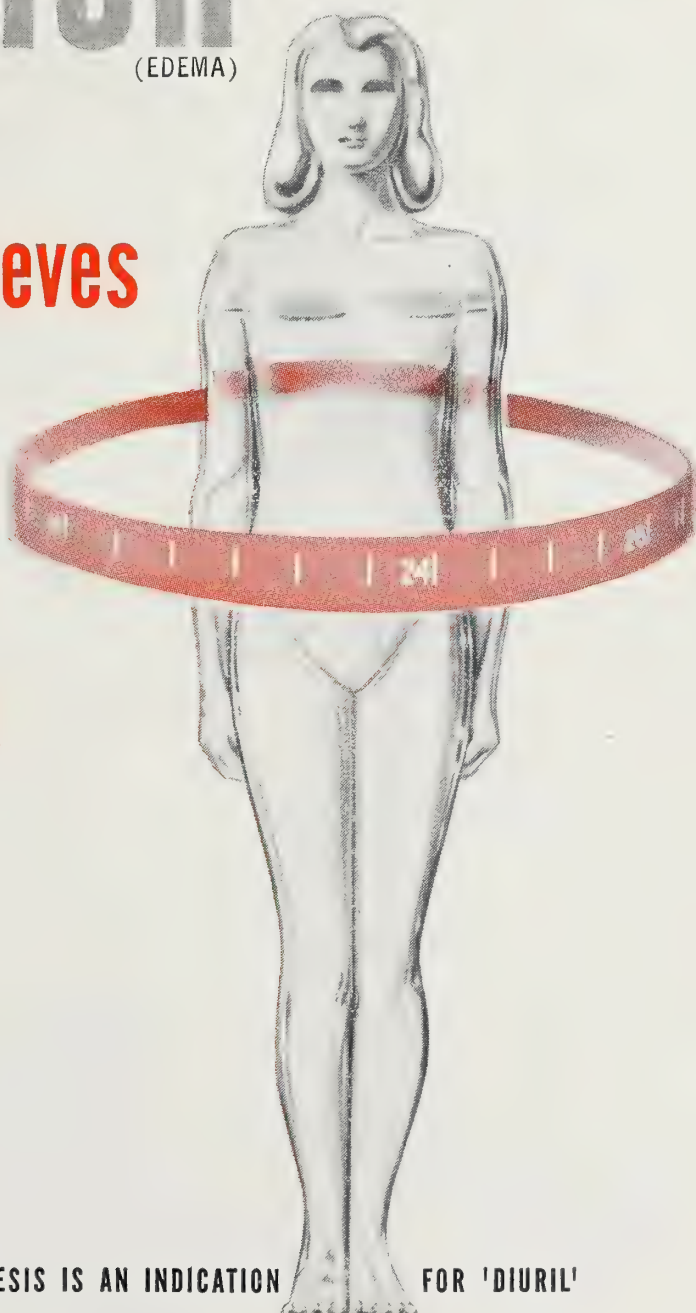
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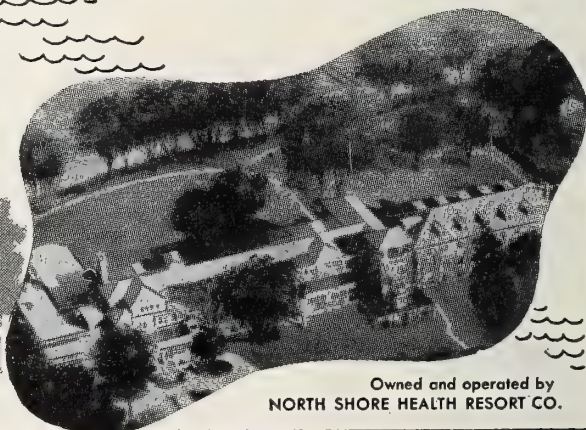
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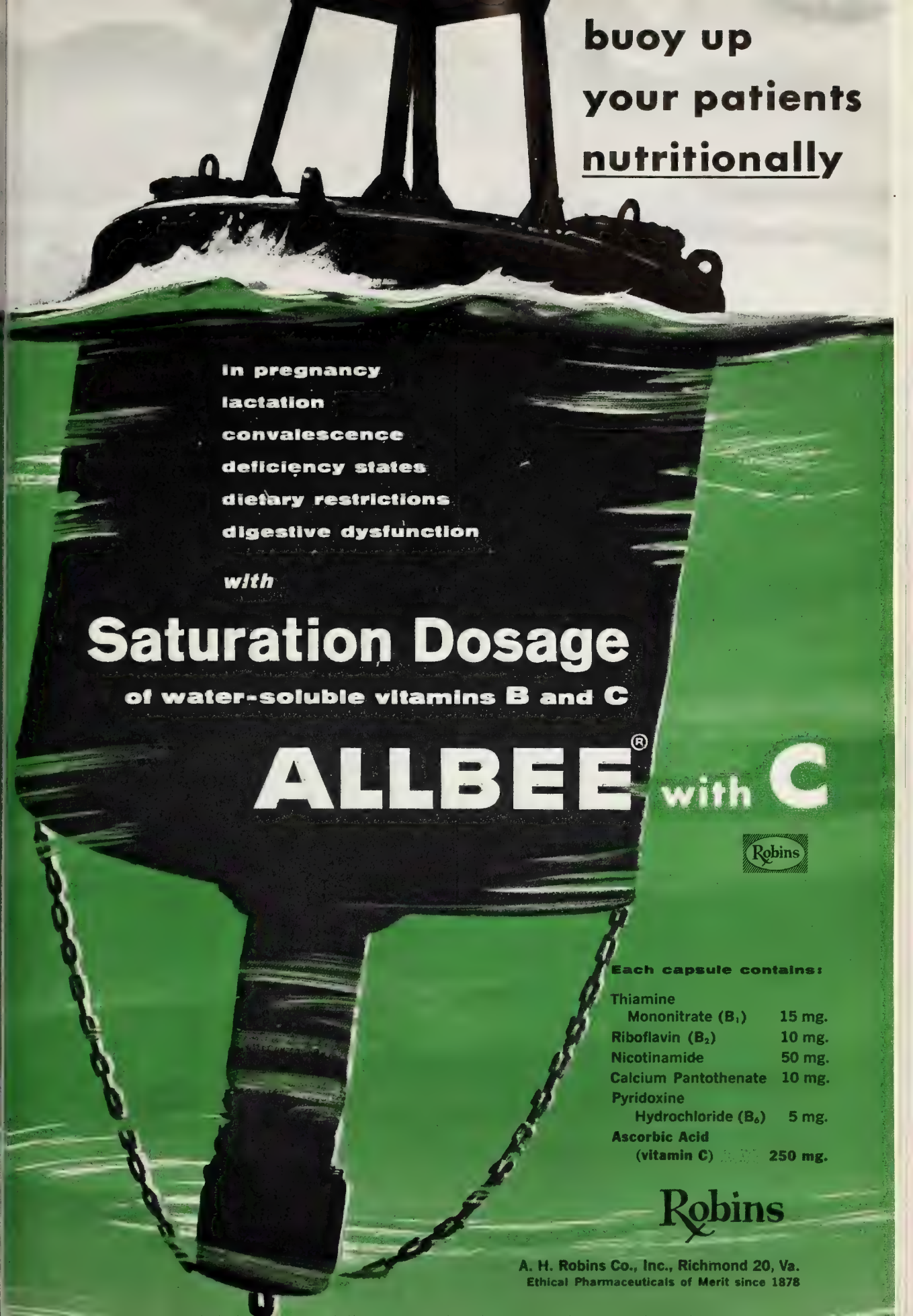
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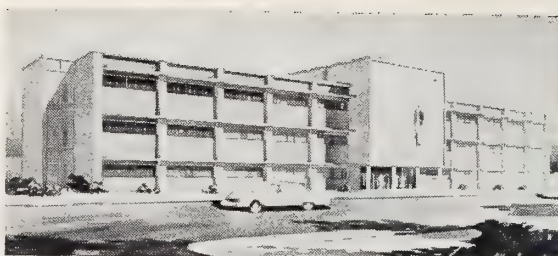
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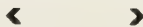
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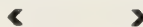
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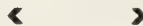
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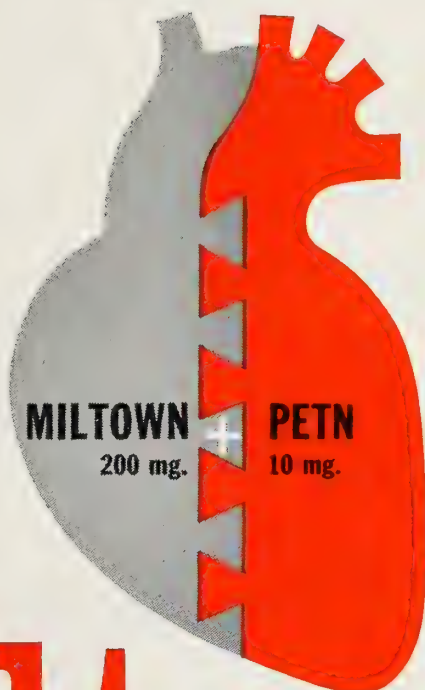
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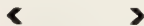
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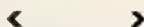
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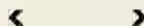
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The Month in Washington



Washington D. C. — After five months of almost no action whatever on health-medical bills, Congress turned toward them late in the session, with the result that quite a number may be passed before the expected mid-August adjournment.

Most important, the House Ways and Means Committee held two weeks of hearings on the Forand bill and other social security issues. The Forand bill is a highly controversial piece of legislation that first came before Congress in another form six years ago but on which no action has been taken. The bill, strongly opposed by the American Medical Association and most other professional groups, would offer up to 120 days a year of hospital-nursing home care plus surgical services to social security beneficiaries.

Critics of the Forand bill list among their principal objections that the age line couldn't be held once the program were set up, and that the result eventually would be total national compulsory health insurance.

There was no indication from the committee whether it really was serious about the Forand bill or was admitting testimony on it merely because there was no easy way to stop such testimony once it was decided to open up the social security program. There was evidence that the committee probably would give priority to increases in public assistance payments, in view of the unusually large numbers of unemployed.

There was also an unexpected flare-up over Medicare, the military dependent medical care program that has been in effect for 18 months. Here the House Appropriations Committee, act-

ing on misinformation, decided it would save tax money by cutting down on funds for the civilian phase of Medicare, thereby forcing more dependents to use military hospitals, which already care for about 60% of them.

However, before the money bill passed the House, proponents of the cut were convinced that they might have gone too far. They agreed to adopt in conference any reasonable amendments that might be worked out with the Senate.

American Medical Association, American Hospital Association, and other professional groups carried on the fight to save Medicare.

Late in the session, Senate committee decided to approve FHA-type mortgage insurance for proprietary nursing homes. This proposal had been supported by the American Medical Association. Speaking for the Association, Dr. R. B. Robins told the Senators that most of the aged population needs a certain amount of skilled nursing and medical care, but not necessarily expensive hospital care. He said that if more and better nursing homes were built, one of the major problems of the aged population would be solved.

Congress also indicated it would enact a number of other health bills, including the following:

A three-year extension of the Hill-Burton hospital construction program, with an amendment to allow loans in place of grants to institutions that objected to direct government aid for religious reasons.

(Continued on page 34)

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*Biegeleisen, H. I.; Clinical Medicine; Oct., 1955

*Roberts, J. T.; Clinical Medicine; Nov., 1957



WASHINGTON (Continued)

Salary increases for medical personnel in Veterans Administration and general pay raises for the military, which would benefit doctors in uniform.

Authorization for grants totaling \$1 million a year to the nation's schools of public health; this was amended to rule out use of the money for ordinary operating expenses.

A public works program, under which communities would be eligible for grants to build schools, hospitals, nursing homes, and other facilities.

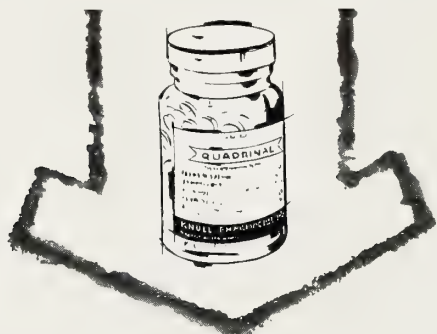
NOTES

Congressmen frequently sound out voter sentiment through the well-used poll method. A recent one by Rep. Harold Collier (R., Ill.), who comes from Chicago, turned up some interesting views on the question of whether the social security system should be used to finance medical care to all those under the program. Opposed were 73%, favoring were 26%, and 1% had no opinion. On the question of expanding mandatory social security, the response was 47% yes, 48% no, and 5% no opinion.

The National Health Survey has found in a preliminary study that 25 million persons in the country were injured badly enough in the second half of 1957 to require medical attention or to limit their activities for at least a day. Home accidents led the cause of injuries, 40.3%; work accidents, 16.7%; motor accidents, 9.8%, and others (including violence), 33.1%.

The AMA has gone to bat for the post of Assistant Secretary of Defense for health and medical affairs. Under proposals of the administration and Congress, the job would be downgraded to that of special assistant. Dr. F. J. L. Blasingame, AMA general manager, told Congress the best interests of the military, the medical services, and the country would be served by continuing the post.

Rep. Thomas Jenkins (R., Ohio), who is planning to retire from Congress, has been praised by Senator Bricker for his important contribution in the field of legislation for the self-employed. He is the author of a bill to permit physicians and others to defer income tax payment on funds paid into annuity plans.



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Psychiatry in Chicago 1935-1957 As I Saw It

HUGH T. CARMICHAEL, M.D., C.M., M.S., CHICAGO

I CAME to Chicago in 1935 to join the staff of the newly organized Division of Psychiatry in the Department of Medicine of the University of Chicago Clinics and to obtain training in psychoanalysis at the Institute for Psychoanalysis of Chicago. At that time the psychiatric situation seemed to me to be about as follows: The Institute for Psychoanalysis, which had been founded in 1932 by Dr. Franz Alexander was actively carrying on training activities and research in psychoanalysis. The Institute for Juvenile Research, under the directorship of Dr. Paul Schroeder, was busy in the field of child psychiatry in training and research, and in providing services at the out-patient level.

At Loyola University School of Medicine Dr. Francis Gerty was Chairman of a combined Department of Psychiatry and Neurology and found it difficult to get support for the essential teaching activities. As Superintendent of Cook County Psychopathic Hospital, he directed the residency training program in psychiatry

there. At the University of Illinois College of Medicine, the Department of Psychiatry, under Dr. H. Douglas Singer recently had been separated from the neurological section, and was functioning at undergraduate and graduate levels and in research activities in and from the Psychiatric Institute at the Research and Educational Hospitals.

Rush Medical College, one of the two medical schools under the University of Chicago, provided for their students a few lectures by Dr. David Rotman and some clinical demonstrations at the Cook County Psychopathic Hospital. At Northwestern University Medical School, the Department of Nervous and Mental Diseases was under the chairmanship of Dr. Lewis J. Pollock, and Dr. Clarence Neymann gave lectures and demonstrations in psychiatry to the medical students. If I remember correctly, Michael Reese Hospital had a Mental Hygiene Clinic and carried on some residency training.

There was a Psychiatric Institute at the Municipal Court of Chicago, directed by Dr. David Rotman. The Criminal Court of Cook County had what was called a Behavior Clinic. At Elgin State Hospital, Dr. Charles F. Read was conducting an active program in research and training. The psychiatric in-patient unit at the

Clinical Professor of Psychiatry, University of Illinois College of Medicine.

From Presidential Address Read at the Annual Meeting of the Illinois Psychiatric Society, April 17, 1957.

University of Chicago Clinics and Billings Hospital was the first psychiatric unit in a private general hospital in the area. The chief psychiatric sanatoria were outside the city in the metropolitan area of Chicago, several of them in Wisconsin, in or near Milwaukee. The Chicago State Hospital at Dunning had suffered considerably from politics.

There was no psychiatric society in 1935. The Chicago Neurological Society, founded in 1898, had been the only professional society with which psychiatrists could affiliate themselves up until 1931. That year the Chicago Psychoanalytic Society had been organized and thus provided affiliation for psychiatrists specializing in psychoanalysis. Other psychiatrists, however, had to await organization of the Illinois Psychiatric Society, this society, in 1939.

The term neuropsychiatry was used by many in preference to the term psychiatry, thus indicating the ambivalence and insecurity felt by those in the field who had come to it through neurology and who had little or no formal training in psychiatry. They seemed to fear emphasis upon the psychological aspects of mental disorders. The new Division of Psychiatry, at the University of Chicago School of Medicine, was not a department but a division of the Department of Medicine. The inclusion of psychiatry as a required subject in the University of Chicago Medical School curriculum was a much delayed forward step which promised much for the future of psychiatry in the area since its psychiatric staff was on a full-time basis as were the staff members of the other clinical departments at the University of Chicago. The residency training programs in psychiatry in 1935 were not well organized for instruction of the residents in training and the number of those in training was few at any one hospital. In fact, the total number was not an impressive one.

The methods of treatment then available had just begun to include the general use of psychotherapy in a tentative way. Reliance still was placed upon hospitalization; hydrotherapy; sedation with bromides, barbiturates, and paraldehyde; occupational and work therapy and a little recreational therapy, the tentative use of some endocrine products; chemical and fever therapy for general paresis and syphilis of the central nervous system; just the beginnings of

organized attempts at group therapy; emphasis upon persuasion, reassurance, and exhortation of patients as psychotherapeutic measures and some use of hypnosis. Shock treatments with insulin or metrazol, had not then come into use here in Chicago. The private practice of psychiatry was being carried on but did not seem to be important except in its hospital aspects, not as office practice.

I would like to return to my advent in Chicago. The newly organized Division of Psychiatry, at the University of Chicago Clinics, was headed by Dr. Roy Grinker, with the rank of Associate Professor of Psychiatry, and had as other members of its staff Dr. Margaret Gerard, as Associate Professor, Dr. Herbert Chamberlain, as Associate Professor assigned to Bobs Roberts Hospital in the Department of Pediatrics, and your speaker as an Instructor. Dr. Jules Masserman was Chief Resident. Drs. Helen Gilmore and Harry Nierenberg were assistant residents, each for six months. Dr. Grinker, who had been Associate Professor of Neurology, was stimulated to develop an interest in psychoanalysis and psychiatry by Dr. Franz Alexander during the latter's year as Visiting Professor of Psychoanalysis at the University of Chicago in 1930-31. This led him, with the support of the University of Chicago and the Rockefeller Foundation, to undertake a personal analysis with Sigmund Freud in Vienna, a study of the psychiatric clinics in western Europe, and of the set-up of psychiatric clinics, teaching hospitals, and medical schools in the United States with a view to establishing the Division.

His organization of the Division included a close working relationship with the Otho Sprague Memorial Institute, then directed by Dr. H. Gideon Wells, Professor of Pathology and Chairman of that Department. This active affiliation with the Sprague Institute and its members, which was intended to be a main source of support and stimulation, also was for collaboration in doing research in psychiatry. The staff of the Institute included physicists, biochemists, pathologists, clinical and experimental psychologists, immunologists, neurologists, and staff members of the Division of Psychiatry, the psychiatrists in the group. The 11-bed psychiatric in-patient unit, though small, proved itself at that time to be relatively satisfactory in

handling the problems of psychiatric in-patients, excluding only very disturbed patients and children. There was an active out-patient service which Dr. Grinker asked me to organize and direct. Nursing services, occupational therapy, clinical psychological services, and psychiatric social work were provided also. Psychiatric consultation services were afforded the other clinical departments.

The teaching of psychiatry to undergraduate medical students was a major function of the Division. Such activity then began in the third quarter of the sophomore year when members of the Division joined with members of other clinical divisions in teaching medical students something of how to approach patients clinically during physical examination and history taking. Some psychiatric lectures were given to the junior class, and junior medical students were given a two-week clerkship on the psychiatric in-patient service. Lectures also were given to the senior class in medicine, each member of which spent some time in the psychiatric out-patient department, for brief periods weekly over a term of six weeks. There was active affiliation, though unofficial, between members of the staff of the Division and the Institute for Psychoanalysis of Chicago.

In the spring of 1936 Dr. Grinker resigned as Director of the Division. He was succeeded by Dr. David Slight who came to Chicago in June of 1936 by way of McGill University, Montreal, the Maudsley Hospital in London, and the University of Edinburgh. Dr. Donald Morrison became the chief resident in the fall of 1936. Dr. Masserman became an instructor during that year. In 1937 Dr. Henry Brosin joined the staff as instructor. Among subsequent members of the resident staff, were included Doctors Joan Fleming, Kurt Eissler, Charlotte Babcock, and Jay McCormick.

Considerable research activity went on in the Division under the stimulus first of Dr. Grinker and then of the Sprague Institute and its members as well as under the individual initiative of the staff of the Division. The research was recognized as including promising and important endeavors and was referred to by Dr. John C. Whitehorn in his chapter on Research in Psychiatry in the Memorial Volume published by the American Psychiatric Association at its

100th Anniversary in 1944. Included among the members of the Sprague Institute were Professor Heinrich Kluver, an experimental psychologist, who had developed the method of equivalent and nonequivalent stimuli in the study of the behavior of monkeys; and Professor Ward Halstead, who developed the now well-known Halstead battery of tests for organic brain conditions.

I carried on work in collaboration with Dr. Allen T. Kenyon, endocrinologist for the Clinics, on eunuchoidism and the effects of testosterone propionate on impotence and studied a eunuchoid patient by the psychoanalytic method. Dr. Masserman and I collaborated on follow-up studies on both in-patients and out-patients. He began his experimental work with animals by stimulation of the hypothalamus in cats, using the Horsley-Clarke stereotaxic apparatus.

Dr. Margaret Gerard had taken over the direction of pediatric psychiatry shortly after Dr. Slight succeeded Dr. Grinker as director of the Division. When she left to join the staff of the Institute for Psychoanalysis, Dr. Adrian Vander Veer succeeded her. I remind you of the full-time plan followed at the University of Chicago Clinics in the clinical departments of the medical school since this is important to remember in making any comparisons with other medical schools in the city and the set-up of their psychiatric departments for undergraduate teaching, research, and residency training.

There were many important developments in psychiatry in the Chicago area beginning shortly after 1935 and early 1936. Those that played major parts in changing the psychiatric scene and contributing to progress in the field at all levels (encompassing undergraduate teaching, residency training, research, private practice, psychotherapy, psychoanalytic training, psychiatric units in general hospitals) I should now like to comment upon.

If I were asked which one person has done the most to facilitate and stimulate psychiatric progress in Chicago in the last 25 years, I would say that it was Dr. Franz Alexander. The major credit for the stimulation, organization, and development of psychoanalysis in Chicago belongs to him. True, Dr. Lionel Blitzsten had been practicing psychoanalysis in Chicago before

Dr. Alexander's arrival in 1930 as Visiting Professor of Psychoanalysis at the University of Chicago. Dr. Alexander met with no little opposition and criticism during his first year in the city. You may recall having heard that he spent the following year, 1931-32, at the Judge Baker Foundation in Boston working in collaboration with Dr. William Healy, the latter himself an innovator of what later became child guidance clinics in this country, and led to the establishment of the Institute for Juvenile Research here in Chicago.

The first staff of the Institute for Psychoanalysis, under Dr. Alexander, included Dr. Karen Horney as Associate Director, Doctors Thomas French, Helen McLean, and Catherine Bacon, with Dr. Lionel Blitzten and Karl Menninger as Lecturers. The Institute was supported by a number of businessmen in the city and by foundations; support had been obtained from both groups to a large degree by Dr. Alexander. Some of the early students at the Institute for Psychoanalysis were from Chicago but the majority came from out of town, many of them commuting on week-ends. Others came to work in the city while they obtained their psychoanalytic training.

The active though unofficial affiliation through students, with the University of Chicago Clinics; Michael Reese Hospital; the Institute for Juvenile Research; Elgin State Hospital; the University of Cincinnati; the Menninger Clinic, at Topeka, Kansas; and Wayne University College of Medicine, Detroit, influenced psychiatric development in these places. In 1936, funds had been obtained from the Rockefeller Foundation for the establishment of fellowships in psychoanalysis, to be given preferably to persons who intended to follow an academic career of teaching and research. These fellowships facilitated the training of several candidates and provided help for others for several more years before the Rockefeller Foundation withdrew its support of this plan.

Dr. Alexander and his staff carried on active research by the application of the psychoanalytic method in the area of what later became known as psychosomatic medicine. Dr. Alexander's book, *The Medical Value of Psychoanalysis*, was published in 1936. Since then, many papers and monographs have been pub-

lished by the staff of the Institute for Psychoanalysis. Dr. Alexander was interested in affiliating the Institute actively with one of the medical schools in the city. He first hoped to do this with the University of Chicago. However, he was given an appointment at the University of Illinois College of Medicine in the Department of Psychiatry under Dr. Singer where for some years he gave his course of Introductory Lectures to Psychoanalysis.

As I said earlier, I came to Chicago to obtain psychoanalytic training. I had hoped to begin my personal psychoanalysis immediately with Dr. Alexander. This story is a familiar one, for many people came to Chicago before and after 1935 with identical hopes. I had to await the arrival of another training analyst, Dr. Therese Benedek, in May of 1936. The available training analysts up to that time had been Doctors Alexander, French, and Blitzsten.

The Rockefeller Fellowship provided funds to supplement whatever the individual candidate could afford to pay for his personal psychoanalysis and towards the fees which the Institute charged for didactic courses and supervision of control cases. The figure set as normal for a training analysis then was \$5 a session. Each fellow paid whatever he could afford and the rest was made up from the fellowship fund. The five fellows appointed in 1936 included Doctors Milton Miller, Jules Masserman, Martha McDonald, Eugene Falstein, and your speaker.

In those early days, the Institute required each candidate to take an oral examination and the Chicago Psychoanalytic Society required the presentation of a thesis as a qualification for associate membership. The latter requirement was abolished with the separation of the Institute and the Society in 1947 when, I believe, Dr. Frances Hannett was the last person to read a thesis for admission to the Society.

Early in the 1940's Dr. Alexander became interested in the application of the psychoanalytic technique in the treatment of patients in which psychoanalysis as such was not indicated or feasible. The short-lived Brief Psychotherapy Council was set up and held at least three meetings up to 1946. The word *brief* occasioned considerable discussion, even acrimony, and did seem to be poorly chosen as an adjective

to designate the difference between psychoanalysis and psychoanalytic psychotherapy.

During the early 1940's Dr. Alexander had begun a seminar at the University of Illinois Neuropsychiatric Institute at which the psychosomatic approach to medical cases other than purely psychiatric was demonstrated by him and discussed. For several years I helped him carry on this seminar which attracted much interest and stimulated many persons in other fields of medicine, particularly internal medicine, to take an active part in investigating the influence of psychological and emotional factors in many illnesses.

Mention should be made of the work of some of the other members of the staff of the Institute. Dr. Thomas French, in his two volumes on the *Integration of Behavior* in which he sets forth his basic postulates and discusses the integrative process in dreams; and also the work of Dr. Therese Benedek on the *Psychosexual Functions in Women*, a field closely allied to my own interests in the relation between the endocrines and mental disorders, especially the psychosexual functions in men.

The tremendous influx of candidates for psychiatric residency training and psychoanalytic training following World War II created a difficult situation since training facilities in Chicago could not begin to handle all the suitable applicants. This eventually led to active collaboration between the Institute and the psychiatric training facilities at the University of Chicago Clinics, the Illinois Neuropsychiatric Institute, and Michael Reese Hospital, eventuating in the formation of the Associated Psychiatric Faculties of Chicago, about which more anon.

Let us turn back now to some of the developments elsewhere in the city following 1935-36. When Dr. Grinker resigned from the University of Chicago Clinics, he went to Michael Reese Hospital where he became the director of the Division of Neuropsychiatry. This was a new development at Michael Reese. He was joined by Dr. Jacob Kasanin as the head of Psychiatry. After Dr. Kasanin left for San Francisco to take over the direction of psychiatry at Mount Zion Hospital, Dr. Maxwell Gitelson, who had been chief of staff at the Institute for Juvenile Research, joined Dr. Grinker. Eventually a psy-

chiatric in-patient unit was opened at Meyer House, research activities instituted, and residency training stepped up. During Dr. Grinker's absence in World War II with the Army Air Forces, Dr. Gitelson was acting director of the division, with Dr. Emmy Sylvester in charge of child psychiatry.

Dr. Henry Brosin, of the University of Chicago Clinics, had been a reserve officer and was called to active duty in January of 1941. I, who had continued on the staff there as Assistant Professor of Psychiatry, resigned in 1943 to enter into half-time private practice and to join the staff of the Department of Psychiatry, University of Illinois College of Medicine, on half-time under Dr. Gerty, with the rank of Associate Professor of Psychiatry and as Associate Director of the Psychiatric Division of the Illinois Neuropsychiatric Institute. Dr. Gerty had succeeded Dr. H. Douglas Singer as Professor of Psychiatry and Head of the Department there, in July of 1941. He was succeeded as Professor and head of the Department of Psychiatry and Neurology at Loyola by Dr. John Madden and as Superintendent of Cook County Psychopathic Hospital by Dr. Vladimir Urse. On December 1, 1941, the Illinois Neuropsychiatric Institute had been opened, just six days before Pearl Harbor. Dr. Gerty directed the Psychiatric Division and Dr. Eric Oldberg the Neurological and Neurosurgical Division.

The Neuropsychiatric Institute had been a brain child of Mr. Willoughby C. Walling, President of the Board of Public Welfare Commissioners, (which was an advisory body to the State Department of Public Welfare of Illinois) and of Dr. Singer. It had been first thought of as a psychiatric institute, but Dr. Singer and Mr. A. A. Bowen, then Director of the Department of Public Welfare, deemed it advisable to make it a neuropsychiatric one. The fiscal administration of the Institute was under the direction of the Department of Public Welfare with Dr. Harry Hoffman, then the State Alienist, serving as Executive Officer. Much time and thought were devoted to the planning of the Institute, especially of the neurological division which was set up just as Dr. Oldberg and his associates wished it. This also was true of the basement laboratories of the Institute (which were included in the Psychiatric Division).

These had also been planned carefully in detail primarily by Dr. Ralph Gerard then of the University of Chicago's Department of Physiology. The physical setup of the psychiatric division was apparently not as well planned or at least supervised closely by Dr. Singer, for when Dr. Gerty and his staff took over, they found many things about which to be critical. The direction of all treatment, research, and teaching in the Institute was under the University of Illinois College of Medicine Departments of Psychiatry and Neurology respectively. All the functions of the Institute and its administration were transferred to the University of Illinois in 1951, except that the State Psychopathic Institute, under the direction of Dr. Percival Bailey, continued to maintain its offices in the building.

Although World War II was upon us when Dr. Gerty took over the direction of the Psychiatric Division of the Institute and of the Department of Psychiatry, he got such good support from the then Executive Dean of the Chicago Professional Colleges of the University of Illinois, Dr. Raymond B. Allen, who was also Dean of the College of Medicine, he was able to make progress immediately in developing teaching and research in psychiatry. Up to then, the budget of the Department of Psychiatry, apart from the support it received from various foundations and grants, and from the Department of Public Welfare, had totalled about \$16,000 a year. Under Dr. Gerty and with Dr. Allen's active assistance, the Department of Psychiatry acquired an increased budget slowly and gradually over the years, reaching an amount at least 10 times greater.

Teaching of psychiatry to undergraduates through all four years of the medical school course was instituted and an active research program developed in the basement laboratories under Dr. Warren McCulloch, neurophysiologist, and his associates, Dr. Ladislav von Meduna, Dr. Raymond Klein, biochemist, and later Dr. and Mrs. Frederick Gibbs in electroencephalography. Dr. Gerty began a new regime regarding admissions to the Psychiatric Division of the Institute, where the facilities for in-patients amounted to 35 beds for adults and 10 for children. Instead of being at the beck and call of or under the influence of outside sources of a political sort and of a group of ex-patients

banded together in an association, he instituted the policy of accepting patients who fitted in with the on-going teaching and research activities in the Division. This proved successful and has continued to be so over the years. From Dr. Singer's former staff, Dr. Gerty had as active assistants Doctors Beulah Bosselman, Irene Sherman, Alfred Solomon; and as his Assistant Director, Dr. I. Ronald Sonenthal. Dr. Stanislaus Szurek was in charge of the in-patient ward for children. He and other members of the staff of the Institute for Juvenile Research assisted in the teaching of undergraduates.

When I joined the staff in September, 1943, the exigencies of war times made it difficult to get adequate help, let alone find suitable candidates for the residency training program. In fact, one had to accept almost anyone who applied as well as to use whatever other sources of help were available among the research assistants, fellows, and junior staff members. Despite these difficulties, many improvements were made in the residency training program, the in-patient service, the out-patient clinic, and the consultation service. In addition, regular staff meetings were instituted, and seminars for the review of psychiatric literature, and later for psychotherapy and psychosomatic demonstrations were begun.

After the end of World War II, the residents increased in number from three to nine and many persons from elsewhere came to us for part of their residency training. The residency training program became an excellent one at this period: most of the residents also sought psychoanalytic training and many began such training before they completed the residency. Several later joined the junior staff and were helpful in carrying on the residency training program and teaching of undergraduates which had remained a major function of the Department. Dr. McCulloch and his co-workers, as well as Dr. Meduna and the Gibbsses, were productive in writing papers setting forth their researches. Such productivity continued later under Dr. Ralph Gerard, who succeeded Dr. McCulloch, and most recently under Professor Leo Abood, Dr. Gerard's successor. Professor David Shakow joined the staff as Professor of Psychology and Director of the Psychological Division of the Department. He developed that division and took a pre-eminent place in the

training of clinical psychologists in the psychiatric field. He left two years ago to join the staff of the National Institute of Mental Health at Bethesda, Maryland.

There were few full time staff members in the Department of Psychiatry (at the University of Illinois) except for those who devoted full time to research such as Dr. McCulloch, Dr. Meduna, Dr. and Mrs. Gibbs, Professor Klein, and later Professor Shakow. There were some minor full time clinical positions, at the level of Research Assistant. Otherwise, only the resident staff were on a full time basis. A number of the staff were on part time. Dr. Gerty was on half-time, as was I, as his Associate Director. While this seemed to work out well for a few individuals, largely part time workers seemed to us to be more committed and involved in their activities outside the medical school, such as private practices, than in their medical school functions. It was clearly not sufficient to have only the equivalent of one full time person setting policy and administering teaching, research, and service programs. Dr. Gerty was eclectic in his choice of staff for the most part as witness the inclusion of Dr. Alexander and the author on it, but had preferred to fill up the positions and push the work on the physiological side before doing so on the psychological side. The clinical staff was weak in that there was no full time person of broad experience to direct the clinical activities. This was due, mainly to the relatively low salaries available so that many persons felt they had to supplement their income by part time private practice.

In 1952 I resigned my administrative paid position at the University of Illinois College of Medicine, to devote at least a quarter of my time to efforts at research in psychotherapy. Since then I have collaborated with David Shakow, Rae Shifrin Sternberg, Ernest Haggard, and other psychologists and with Doctors Leon Bernstein, Morris Sklansky and Joel Handler in making preliminary studies of sound-film recording of psychoanalytic therapy. Currently, considerable change in personnel is occurring in the Neuropsychiatric Institute. Drs. Franz Alexander and George Mohr have retired from the staff to go to California. Dr. Marc Hollender resigned to become Professor of Psychiatry and Chairman of the Department of Psychiatry at the State University of New York Medical Center at Syracuse.

Let me return now to the topic of the Associated Psychiatric Faculties of Chicago. Before World War II, Dr. Grinker in his presidential address to the Chicago Neurological Society had proposed a plan for co-ordination of psychiatric and neurologic training in the Chicago area. This was a basis for later development of the Associated Psychiatric Faculties of Chicago. The greatly increased demand for residency training at all the psychiatric hospitals in this area beginning in 1946-47 led to collaborative efforts in this field by co-operation of the University of Illinois, the University of Chicago, Michael Reese Hospital, and the Institute for Psychoanalysis. Doctors Brosin, Grinker, and I were active with the support of Dr. Alexander, Miss Helen Ross, Dr. Mohr, and Dr. Gerty in planning this organization which was incorporated in 1948. Its goal was to attempt to co-ordinate and supervise as well as to maintain standards of excellency in psychiatric residency training in Chicago, to facilitate training in psychoanalysis, and to aid in the selection of candidates of the highest caliber for training.

For a few years this was a successful venture. You may read about it in Dr. Brosin's article, in the *American Journal of Psychiatry* in 1952. Under its aegis, group selection of residents was made over a period of four or five years for three residency training programs in the city and at first also for candidates for the Institute for Psychoanalysis. The latter was dropped later on. Selections were made also for rotating psychiatric residencies, support for which was obtained from grants from the United States Public Health Service. Unfortunately, the successful collaboration did not continue. It was interrupted at first by Dr. Brosin's departure to the University of Pittsburgh and by the unsettled state of affairs in psychiatry at the University of Chicago Clinics, and then through lukewarm support, perhaps more correctly called an ambivalent attitude on the part of some of the members. At present, the Associated Psychiatric Faculties of Chicago—although it has been broadened to include Chicago State Hospital and Northwestern University psychiatric training programs—is not performing as efficiently and effectively as heretofore. This I regret.

Upon his return from service with the Army Air Forces, Dr. Grinker became active in setting

up a much enlarged residency training program in psychiatry at Michael Reese and in getting sufficient endowment to start construction of the Institute for Psychiatric and Psychosomatic Research and Training there. Besides this, he encouraged and stimulated considerable research. Under his guidance, a group has attempted to set up a unified theory of human behavior. He and his co-workers have carried on important work in the field of psychosomatic medicine and in his monograph on *Psychosomatic Research* he reviews critically the various theories in that field. He and his colleagues are carrying out investigations into anxiety from biochemical and psychological viewpoints. Dr. Grinker has been president of all three of the societies in his specialties in the city—namely, the Chicago Neurological Society, the Chicago Psychoanalytic Society, and the Illinois Psychiatric Society (as I have).

On Dr. Brosin's return from World War II army service, he reorganized the Division of Psychiatry at the University of Chicago, greatly enlarged its training program for residents, and was given continued help through the Rockefeller Foundation (which had initiated and supported the original program there), and also from training grants from the United States Public Health Service. He was handicapped, however, as was his successor Dr. Nathaniel Apter, by the administrative set-up at the University of Chicago and the apparent failure of the University to directly and wholeheartedly support psychiatry financially and in spirit. For the past year and a half, there has been a Department of Psychiatry there with Dr. C. Knight Aldrich as Chairman. This provides opportunity to make the progress which heretofore had been stymied in a number of ways and directions.

While there has been greater acceptance of the desirability of better teaching of psychiatry and the psychosomatic approach to medical students, there still exists an attitude of resistance to good implementation of the idea. Psychiatry does not have the official status it is accorded by the Army, Navy, and Air Force, and by the Veterans Administration and the U.S. Public Health Service. In these instances it is recognized as a major division along with general surgery and general medicine. At most medical colleges it is not included among the major divisions: surgery, medicine, obstetrics and gynecology, and

pediatrics. I am not making a plea that it should be so included but merely stating the facts. Many of the senior staff of other departments in medical schools seemingly support the importance of psychiatry and its place in the medical curriculum. Some appear to mean by this that they recognize the importance of environmental influences in health and illness and are willing therefore to include sociological and economic factors. They seem to shy away from acceptance of psychological factors (including personality make-up and emotional attitudes) as significant influences in the production and treatment of illness, although they give lip service to and profess intellectual appreciation of this viewpoint.

Need I say very much at this point other than to assert what most of you know—namely, that over-all progress has been made in Chicago in the development of psychiatric teaching and training and research since 1935. This includes much greater activity in the Veterans Administration Hospitals; a new lease on life at the Chicago State Hospital, under Dr. Kalman Gyarfás; continuation and extension of Dr. Gerty's former program in the Department of Psychiatry and Neurology at the Stritch School of Medicine of Loyola University under Dr. John Madden as Professor and Chairman of the department; direction of the activities of Cook County Psychopathic Hospital under Dr. Gerty's successor there, Dr. Vladimir Urse; the initiation and development of a Department of Psychiatry at the Chicago Medical School under Dr. Harry H. Garner as Professor and Chairman of the Department; the reorganization of psychiatric training at Northwestern University under Dr. Benjamin Boshes, Chairman of the Department of Nervous and Mental Diseases; continued vigor in the Institute for Psychoanalysis under its new director, Dr. Gerhart Piers; and the plans for the new State Psychiatric Institute in the West Side Medical Center area under the direction of Dr. Percival Bailey. The newly constituted Psychiatric Research and Training Authority of the State of Illinois which began its operations July 1st, 1957 and functions as an independent Board to receive and dispense funds for psychiatric research and training in the state; its funds are to be derived from payments made by persons who are not indigent and who receive treat-

ment in the state mental hospitals. The number of psychiatric units in general hospitals has increased manifold. Besides, the University of Chicago Clinics, Michael Reese Hospital, and St. Luke's Hospital—Presbyterian Hospital have had units, as have Chicago Wesley Memorial, Mercy, Loretto, St. Joseph's, Passavant, Mount Sinai, and Evanston Hospitals.

In view of the occasion, it seems appropriate that in some of my remarks tonight, I should touch briefly upon the history of this society. To do so is pertinent in view of the title of this address. Only the older members of the Society are fully aware of its relatively short life. Its conception occurred in the fall of 1938 when a small group of Chicago psychiatrists, among whom some of the most active included Drs. Kasanin, Singer, Conrad Sommer then Medical Director of the Illinois Society for Mental Hygiene, Gerty, Slight, Neymann then Chief of Staff at Cook County Psychopathic Hospital and Associate Professor of Psychiatry at Northwestern University School of Medicine, and Dr. Ralph C. Hamill, Associate Professor of Psychiatry, Rush Medical College. At the invitation of this group, a larger group of psychiatrists was assembled to hear the proposal for setting up a psychiatric society, and to draw up a constitution and by-laws. The group responded favorably and adopted a tentative constitution and by-laws. Dr. Singer became its first President and Dr. Sommer, its first Secretary-Treasurer.

There have been ups and downs in the quality of the meetings and of the scientific programs of the Society in the past 18 years. At times the quality has been very high. There were occasions when it looked as if the Society would die and be unlamented, for so few members attended meetings during some years that it was virtually impossible on occasion to conduct the business of the Society, let alone have a respectably-sized audience to listen to the speakers. I am happy that this year there has been such an active interest and good attendance at meetings. From my vantage point on the platform I have been able to count the attendance. With the exception of the one meeting when I was away last month, I know that well over 100 were in the audience to listen to the scientific program each time. Not all were members of the Society, but there

was always a quorum to enable us to do business. Another problem of the Society throughout the years has been its tendency to represent mainly psychiatrists in the metropolitan area of Chicago and to leave members of the Society and other psychiatrists who lived elsewhere in the state without much opportunity for active participation. Something should be done about this. I hope it will in 1957, when I trust we will become officially a district branch* of the American Psychiatric Association by the action of its District Assembly, its Council, and its membership at its annual meeting.

You will have noted that I have not talked much about shock therapy, prefrontal lobotomy, insulin treatment, group therapy, and the tranquilizing drugs. This is not because I believe them to be of no help in treatment. I have used each of these methods in trying to help patients over the past several years and would still use them if I found them indicated for any individual patient's particular welfare. There has been a trend, however, not only here but in the country at large, to abandon psychological methods of treatment, understanding of mental disorders, and shock treatments and to substitute the new tranquilizing drugs. Recent research in the biochemical aspects of psychiatric disorders have led enthusiasts to declare that a revolution is upon us in psychiatry. I doubt that either it or the advent of the tranquilizing drugs will completely revolutionize our understanding and treatment of mental disorders any more than lobotomy, shock treatment, and insulin therapy did, as was pointed out by Dr. Percival Bailey in his Academic Lecture to the American Psychiatric Association here in May of 1956.

However, I do not agree with Dr. Bailey that Freudian psychoanalysis should be discarded, as he seemed to imply in his remarks. I continue to see its possible usefulness just as I see possible usefulness in other methods—physiologic, biochemical, or pharmacological. I see it as having usefulness as a theory and method for investigating and treating mental disorders just as I see biochemical studies, pharmacological investigations, and physiological inquiries as leading to results which may prove helpful in our understanding and treatment of patients. Since Dr. Bailey's address, I have heard many angry com-

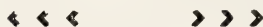
*This was accomplished in May 1957.

ments about it. I, for one, would defend his right to his opinions and his expression of them, whether I agree with him or not.

And now I bring my remarks to a close with a quotation from Montaigne:

"But it is not only the heavens which science has equipped with ropes, engines, and wheels. It has forged for this poor little human body no less an array of retrogradations, trepidations, accessions, recessions, and aberrations. To fit

the movements they see in man, into how many parts, orders, and stories have they divided the structure of the mind? They make of it an imaginary thing. They paw, rip, place, displace, piece, and stuff it to their hearts' content, yet to this day they have not grasped it. Not only in reality, but even in theory, they cannot master it so that some sound or cadence does not elude their architecture, enormous as it is and plastered with a thousand false and fantastic patches."



Government research

At present the Department of Health, Education, and Welfare, and particularly its component health agency, the Public Health Service, occupies a dominant place in the support of medical research through the use of federal tax funds. In turn, the National Institutes of Health, the principal research arm of the Public Health Service, is charged with dual medical research responsibilities. One of these responsibilities is to conduct medical and related research within its own laboratories and facilities, including the Clinical Center at Bethesda, Maryland, and a number of field stations in various parts of the country. The other is to aid in the support of individual scientists or groups of scientists working in universities, hospitals, laboratories, and other public and private nonprofit

institutions throughout the country. It may be of interest to note that more than two-thirds of National Institute of Health (NIH) funds are expended in our so-called extramural activities—grants and awards to non-federal scientists. Less than one-third is spent on intramural or direct operations. Although the NIH constitutes the primary focus of medical research activity within the Public Health Service, the other principal Bureaus of the Service—the Bureau of Medical Services and the Bureau of State Services—also are engaged in investigative and research activities. It is a fundamental belief of those who guide Public Health Service programs that an active research program is essential to the establishment and maintenance of highest standards of performance in all its assigned tasks. *Thomas D. Dublin, M.D. Medical Research. California Med. Mar. 1958.*

Preparing for Disaster

BURTON C. KILBOURNE, M.D., WILLIS G. DIFFENBAUGH, M.D.*, JAMES G. SCHROEDER,†
CHICAGO

THERE have been numerous civilian disasters which have stressed the value of preparedness on the part of those professions, institutions, and governmental agencies to whom the care of the injured is entrusted. Perhaps more impressive has been the adverse publicity resulting from lack of preparation. The threat of atomic warfare has created an awareness of the need for planning for the care of mass casualties. In other quarters there has been an attitude of resignation with a feeling that under such circumstances the disruption of facilities would be so widespread that no plans would be effective. Be this as it may, it has seemed to us at St. Luke's Hospital that we could develop a plan for civilian disasters, and in so doing stimulate the thinking of our staff along these lines to a degree which would result in greater ingenuity and more effective handling of mass casualties under any circumstances. Our work has been intensified since the Joint Commission On Accreditation of Hospitals has required that institutions have an approved disaster plan. We would like to relate briefly how our plans at St. Luke's Hospital have developed.

A committee composed of representatives of the medical staff, nursing, and administration was formed to study the problems. We reviewed our own outdated plan. We studied the reports of the Waco¹, Flint², Vicksburg³, and Worcester⁴ tornadoes, in which there were totals of 3,100 injured and 358 killed. Other material was obtained from the reports of the Coconut Grove^{5,6} and Baltimore-Arundel fires^{7,8} and the train wreck at Lynn⁹. Some of our committee could draw upon experiences of World War II and the

Korean War. Participation in the care of casualties from the LaSalle Hotel Fire and local railroad wrecks add to the background.

From this study, we pictured a variety of casualties in unpredicted numbers arriving at the hospital by various conveyances. It could be necessary to send to the disaster scene, a mobile first aid team of hospital personnel. Our physical facility could be completely intact, disrupted to a variable degree, or without power and water. The hospital could be completely staffed or understaffed for the emergency, depending on the time of day or night. Those off duty might have difficulty in reaching the hospital.

Two alternative plans were proposed. Plan A (Figure 1) assumes an intact electrical and water system without impairment of our oper-

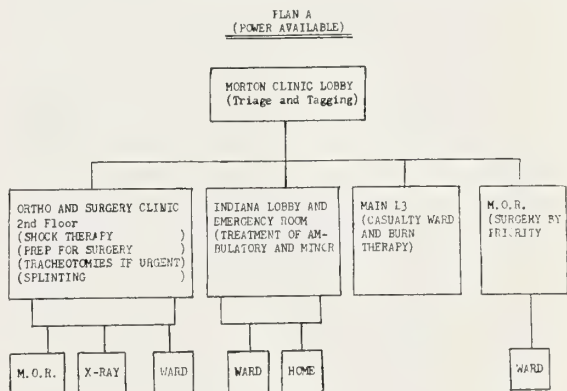


Figure 1

ating ability. Plan B (Figure 2) is designed for functioning in a limited capacity in the absence of power. The appropriate plan is to be declared in effect on receiving notification of a disaster. Switchboard operators are to call immediately all available personnel.

The flow of casualties is to proceed to one entrance where they will be met by a triage team. Here every effort will be made to avoid a bottle-

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*Collected reports of these and other disasters are now available in the booklet, "Readings in Disaster Planning" published by American Hospital Association.

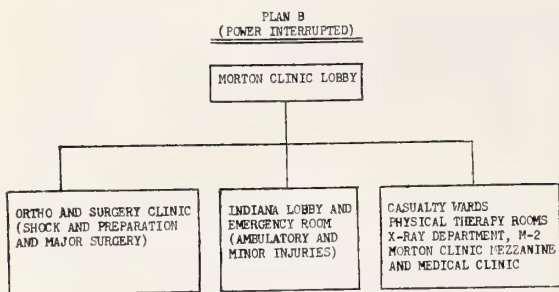


Figure 2

neck, by limiting the function, as much as possible, to sorting, and directing to appropriate stations. Other teams are organized for shock and resuscitation, fractures, burns, major surgery, ambulatory treatment, anesthesia, medical problems, and consulting in the specialties. Members of the appropriate department of the medical and nursing staffs are assigned accordingly. The departments of radiology, pathology, pharmacy, surgical supply, and social service are similarly organized. The administrative services under the direction of the administrative representative include public relations, dietary, personnel, purchasing, admissions, housekeeping, maintenance, switchboard, and chaplain.

Each team, department, and service has reviewed its function under disaster conditions. Work areas or centers for triage, shock, and resuscitation, and care of ambulatory patients are designated to promote a smooth flow of casualties with the least possible congestion of transportation. A casualty ward can be prepared by conversion of a nurses' practice ward, and by placing cots in halls or the conference room. Other beds can be made available by selectively discharging or evacuating patients to hotels.

Each team has studied its requirements for personnel, space, and equipment. We believe it essential that each team member be sufficiently well acquainted with the plan to be able to direct inexperienced help enlisted on the spot.

The triage team in our plan is headed by surgeons who have had war experience. Appropriate alternates, house and nursing staff, clerks, and litter bearers complete the team. Their function is to examine sufficiently to determine the severity of injuries, and assign a priority. Priority 1 indicates that immediate treatment is necessary to save life. Priority 2 includes those needing early but not necessarily immediate treatment. In priority 3, life will not be endangered

CASUALTY IDENTIFICATION CARD
PRESBYTERIAN ST. LUKE'S HOSPITAL
DISASTER PROGRAM

DATE _____ TIME _____

NAME _____ ADDRESS _____

TELEPHONE _____

PERSONAL DATA RELATIVE'S NAME _____

OCCUPATION _____ RELIGION _____

EMPLOYER _____ ADDRESS _____

ACCIDENT LOCATION _____

BROUGHT IN BY _____ RACE _____

HISTORY, AGE: _____ SEX: M F CIVIL STATUS: M S W D

EXAM. T. _____ P. _____ MIN. R. _____ MIN. BP. _____

X-RAY _____

DIAGNOSIS AND DISPOSITION _____

SIGNATURE OF ATTENDING PHYSICIAN _____

ATTACH TO PATIENT _____

FORM 11-42

Figure 3

by waiting. In priority 4, the patient is moribund and beyond help. This team will render only the most vital life saving treatment at their station. An identification tag (Figure 3), upon which is recorded the diagnosis, medications, priority, and disposition will be attached to each patient.

Patients in shock or needing resuscitation will be taken to the appropriate station. Additional examination, transfusions, oxygen therapy, tracheotomies, splinting, and preparation for surgery will be carried out as needed.

The fracture and burn teams will standardize their treatment as far as possible. Their work will be carried on in the wards, the cast room, and operating room. In the ward, a responsible nurse or physician will keep a current list of patients awaiting operation, and in consultation with the surgeon in charge of the operating room, forward these patients to surgery as rooms are available. It will be desirable to segregate patients according to diagnosis, to concentrate

geographically as far as possible the work of the respective teams.

In the operating room, effort will be made to limit the extent of procedures without compromise of principle. Many wounds will be cleaned, excised, and dressed openly, with deliberate planning for secondary closure or revision. (This routine has been shown to be safest under these conditions.) Packs will be standardized for extremity, abdominal, chest, and head cases.

Ambulatory patients will be treated in the emergency room which will be reserved for this purpose. Adjacent recovery facilities are desirable. It can be assumed that 60 out of each 100 casualties will be in this category.

The work of the professional personnel will be directed and correlated by the chief of staff, committee co-chairman, and the nursing director and her deputies.

The administrative services have individually studied their functions. Public relations will handle press releases; nonessential and other personnel will be assigned to more urgent duties. Dietitians have taken stock of supplies which can be used with and without facilities for cooking. The maintenance department recognizes the importance of its function, especially if there is power or water disruption.

The director and assistant director will not only have the responsibility of co-ordinating these services, but must also handle liaison between the governmental agencies and the Red Cross.

This brief description is intended to give the highlights of the plan. It should be understood that it represents the combined effort of the committee and team members who were asked to contribute to the various sections of the plan. We believe that team members should be acquainted with the functions of the other teams, and to this end numerous meetings were held to approve and criticise each new section. The plan was presented to the staff at a regular clinical-pathological conference. It is presented in

book form to each new intern class. Drill sessions are held twice a year in which 100 to 200 casualties from a simulated disaster are processed. Much interest is created when live casualties (volunteer student nurses) are tagged with horrifying diagnoses, and submit to "treatment." There are no shortage of litter bearers on these occasions. Each team designates its treatment, tabulates the number of casualties handled, and estimates time and supplies required. After an hour of this activity, a critique is held. Considerable interest is exhibited. It is amazing how fast our surgeons operate (on paper). We believe these rehearsals both disseminate and sustain the interest of the staff, and are particularly valuable as a means of familiarizing new personnel with the working details of the plan.

In conclusion, we recognize that no plan for a disaster can be perfect because of the large number of unknown and unpredictable elements. We believe that plans and rehearsals developed with broad participation of the hospital personnel, will lead to more nearly adequate equipment and supplies, and stimulate the individual ingenuity so necessary should an emergency arise.

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The Effects of Low Level Radiation Exposure

AUSTIN M. BRUES, M.D., DIRECTOR OF THE DIVISION OF BIOLOGIC AND MEDICAL RESEARCH AT THE ARGONNE NATIONAL LABORATORIES

Dr. Robert Adolph: The biologic effects of low level radiation exposure in man is a problem of real importance to the physician. As a humanist, he is concerned with the possibility of mutagenic effects. As a clinician, he wants to know more about disease states attributable to radiation. Is the diagnostic and therapeutic use of X-ray—which heralded a new era of medical achievement—now to be looked upon as a necessary evil? What can we consider safe levels of radiation exposure? Is there such a thing as a safe level? These questions are currently hotly debated in lay publications. In the interests of less heat and more light we have asked Dr. Austin M. Brues, Director of the Division of Biologic and Medical Research at the Argonne National Laboratories, to speak to us today.

Dr. Austin M. Brues: It is true, we read a great many conflicting opinions in newspapers concerning the possible biologic effects of different sources of radiation and even among scientists, there is no general agreement. I would like to discuss the available facts and, to the extent that it is possible, reach objective conclusions.

To better understand the effects of low level exposure, it is necessary to give a brief discussion of acute radiation effects. It has been estimated that one exposure of about 500 r (roentgens) to the whole body is a lethal dose to 50 per cent of humans (so-called L.D. 50). Dogs are slightly more sensitive while the L.D. 50 for rats is higher, and for rabbits is about 800-900 r. Acute radiation exposure affects mainly the blood forming tissues. In mice, the effects take 10 days to three weeks to become evident, while in man, aplastic anemia may not develop until two months or longer after acute exposure. Dogs, rats, and rabbits may die within the first week because of acute destruction of the gastrointesti-

nal epithelium and failure of these cells to regenerate.

Locally, concentrations of 2,000 r or more may be delivered by radioisotopes or X-ray therapy, and tolerated. When exposure is localized, the usual late response also is local and may become manifest as carcinoma of the skin or an osteogenic sarcoma. Where delivered by radium an exposure of a few hundred roentgens or more may produce bone changes 20 or 30 years later.

In discussing low level radiation exposure we speak in terms of mr (milli-roentgens): 100,000 mr is equal to 100 r.

It is known but perhaps not generally appreciated that we are being irradiated all of the time from several sources. Cosmic radiation goes on 24 hours a day, but the actual dosage received depends on where you are. At sea level, it would be approximately 35 mr per year while at one mile altitude, exposure approximates 55 mr per year. Other natural sources of radiation are building materials and the ground. At a given point on the surface of the ocean (which

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may be considered to be base line) 35 mr per year are emitted. The usual materials in a building can be expected to give off 60 to 100 mr per year. Exposure within some houses, as demonstrated in a Swedish study, amounts to 200 to 300 mr per year.

Other sources of low level radiation include natural potassium in our own body and exposure to other peoples' natural potassium in a crowd. This would yield 20 mr/year and 2 mr/year respectively. Radium adds up to 100 mr/year and carbon¹⁴ 1-2 mr/year. Older television sets and radiolucent watch dials contribute small exposures. It might be pointed out that radioactive fallout from nuclear bomb testing to date has contributed only a fraction of 1 mr per year to our total exposure.

Thus the average minimum radiation exposure per year is 100-150 mr, but the figure varies with location. While it may approximate 100 mr per year in Chicago, it probably is closer to 200 mr per year in Colorado.

There is good evidence that the rate at which mutations occur is directly proportional to the radiation dose to the gonads. Mutations are probably recessive in nature and do not express themselves for several generations. This is one reason why documentation of genetic effects of radiation in man is difficult. Radiologic procedures (chiefly diagnostic) contribute an average dose to the gonads in man in excess of natural radiation, which probably is in the range of 20-100 mr per year.

There are other mutagenic influences besides radiation, which probably accounts for only 10 per cent of all mutations. A low dose of 25 r in fruit flies has produced mutations. It is possible that a radiation dose of 50 r, either as a single dose or distributed over a lifetime may double the natural mutation rate in man. Since this rate is not precisely known for the past, it is difficult to evaluate the significance of doubling it.

Mutations have been effective in adapting man to his environment, however, and if we consider that we are at an optimum state now, then an increase is likely to result in poorer adaptation of man to his present environment. Since most mutations are recessive, no effect usually is noted until interbreeding fuses two such recessive genes. Sometimes the recessive form can be shown to be advantageous to the organism;

sickle-cell anemia, in its recessive form, confers resistance to malaria, perhaps explaining the persistence of this gene in tropical areas.

Surveys comparing the incidence of leukemia in radiologists with that in a control group of physicians not habitually exposed to radiation showed leukemia more common in radiologists by a factor of at least five. Life tables also purport to show that radiologists on the average live five years less than other physicians. Such statistics are difficult to interpret since much depends upon the age at which physicians begin to practice their specialties. At present, life shortening must be considered questionable.

Does every ionization contribute to shortening of the life span? Experiments with small animals reveal that below 100 r, no differences are noted between irradiated and nonirradiated animals. Above 100 r, there appears to be a decreased life span.

The incidence of leukemia appeared to increase with larger radiation dosages. The adverse effects at Hiroshima and Nagasaki were dependent upon the distance of the recipient from ground zero. At a distance of 1,500 meters the dose was 120 r, but fell to 20 r at 2,000 meters. British investigators studied a group of patients who received X-ray therapy for ankylosing spondylitis. Approximately 40 cases of leukemia were found in this group. There appeared to be a direct relationship between the development of leukemia and X-ray exposure above 500 r. In another study in the United Kingdom currently in progress, the incidence of leukemia in children below age 10 is being determined. There appears to be no significant difference between youngsters who received irradiation in infancy and a control group, but in somewhat less than 40 cases of leukemic children, the mothers had received X-ray pelvimetry during gestation, as against an expectancy of about half as many cases. The average X-ray dose involved was estimated as 2.5 to 4.0 r, but this cannot be established positively.

It has been widely suggested that leukemia, as a somatic mutation, may occur in direct proportion to the dose of radiation. This theory has not been proved and there are many reasons why it does not appear likely. As with genetic mutations, however, direct proof, either experimental

or from human statistics, could hardly be obtained at radiation doses comparable to the natural background.

Dr. Roger A. Harvey, Professor of Radiology: The Shields Warren study of the incidence of leukemia in radiologists is being criticized as it was unduly weighted to include a high percentage of early workers in the field who received high exposures for many years before it was generally known that radiation could be harmful.

Dr. Ford K. Hick, Professor of Medicine: Is all leukemia due to ionizing radiation?

Dr. Brues: No, other leukemogenic agents have been described: benzol in man, and estrogens and some hydrocarbons in mice.

Dr. Robert Adolph: Should we not question all women in the childbearing age as to the date of their last menstrual period before ordering a lower G.I. series, considering the possible large gonadal and/or fetal exposure? What is the probable gonadal dose from a barium enema study?

Dr. Brues: Radiation of mice during the estrous cycle can produce a decreased litter size.

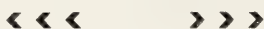
Dr. Harvey: Usual fluoroscopic equipment and technique in a complete lower G.I. survey may involve 7 to 9 r. Some clinics will not do a barium enema until just after menstruation.

Dr. George Gee Jackson, Associate Professor of Medicine: What is the effect of X-ray on the ovaries?

Dr. Harvey: Some investigators have maintained that a small dose X-ray has a "stimulating" effect on these organs.

Dr. George A. Saxton, Jr., Associate Professor of Preventive Medicine: If X-ray radiation to rats produces leukemia, what about other radioactive elements such as strontium⁹⁰, a product of hydrogen bomb testing?

Dr. Brues: There is little experimental work in animals using strontium⁹⁰ to answer your question. Certainly, we know that leukemia is a less likely effect of strontium⁹⁰ than bone neoplasia. It is well to remember the importance of factors other than radiation exposure, such as tissue responsiveness.



Hay fever

Ten of 13 patients suffering from seasonal pollinosis presented themselves for the first time during the pollen season. They were suffering acutely from lacrimation, conjunctivitis, rhinorrhea, sneezing, and nasal obstruction and were not relieved by the use of antihistaminics, eye-drops, nosedrops, or other symptomatic treatment. The remaining three patients were undergoing specific treatment for pollinosis and suffered relapses during the season. Relief of symp-

toms in all 13 children resulted from the use of prednisone in 24-48 hours. It was necessary to give the 10 patients suffering from seasonal hay fever, who had not received desensitization previously, maintenance doses of 5-10 mg. of prednisone per day for five to seven days and a few, as long as 14 days while treating them co-seasonally with small amounts of intradermal antigens. This somewhat longer period of treatment did not result in any apparent side effects. *Samuel J. Levin, M.D. and Philip Adler, M.D. Prednisone in the Treatment of Allergic Diseases in Children, A.M.A. Am. J. Dis. Child. Feb. 1958.*

Nausea in Pregnancy: Some Psychosomatic Relationships

HARRY L. SENGER JR., M.D., CHICAGO

IT is widely believed that emotional factors play an important role in the nausea many women suffer from during pregnancy. This paper presents the results of a pilot investigation concerning these beliefs.

Two hundred eighty consecutive pregnant clinic patients filled out an anonymous self-explanatory questionnaire dealing with their reactions and feelings about pregnancy and certain psychosocial aspects of life. The patients were divided approximately into thirds with regard to nausea. Seventy three women (26.1 per cent) reported *no* nausea in pregnancy; 109 women (38.9 per cent) reported *moderate* nausea; and 98 women (35.0 per cent,) *severe* nausea.

The answers given by the group reporting no nausea were compared with those reporting severe nausea. Some differences were found which were unlikely to have occurred by chance. ($p < 0.05$) A study of these differences suggests that unconscious or preconscious personality factors may be related to nausea in pregnancy. Compared to women who reported no nausea during pregnancy, those who reported severe nausea tended to report that:

- 1.—Sexual relations sometimes make them feel "sick to the stomach."
- 2.—They have had to do considerable spitting during pregnancy.
- 3.—When "things go wrong" they are likely to react by "getting mad."
- 4.—They differ with the husband concerning whether a girl or boy baby is desired.

In addition to the four differences detailed above, women who reported severe nausea during pregnancy exhibited no suggestion that they were worried or unhappy about having a baby.

From The Department of Obstetrics and Gynecology of the University of Illinois School of Medicine, Chicago.

In this respect, there was no difference between them and the group reporting no nausea.

It has been suggested¹ that pregnant women with severe nausea generally are unduly dependent upon their mothers or are adverse to sexual intercourse in some way. Contrary to these beliefs we found in our group that the patients, in general, neither lived with nor visited their mothers daily. Moreover, they reported that their sex desire was approximately equal to that of their husbands, and that they usually reached a climax during intercourse. In these respects, there was no difference between the group reporting severe nausea and women reporting no nausea.

The population of this study consisted of clinic patients — poorly educated lower economic strata; 90 per cent were Negro. A comparable study will be done next year with a group of private patients of the white race. In this way, the relationship of racial and economic factors to nausea in pregnancy will be investigated.

SUMMARY

Two hundred eighty consecutive pregnant clinic patients filled out a self-explanatory, anonymous questionnaire concerning their reactions and feelings about pregnancy and certain psychosocial aspects of life. The women who reported no nausea were compared to those with moderate and severe nausea. Some differences were found which were unlikely to have occurred by chance. These differences suggest that unconscious or preconscious personality factors play an important role in the nausea which many women suffer during pregnancy.

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Sensitivity to Fabric and Film Used for Packaging

PAUL TACHAU, M.D., ALBERT J. LEVINE, M.D., MORRIS FINKEL, M.D., AND
WILLIAM I. FISHBEIN, M.D., CHICAGO

SEVEN materials used in packaging were tested to determine the frequency with which they produced allergic responses or were primary irritants. Positive reactions to the patch tests occurred in only one of almost 200 persons tested. Nylon film and cellophane are rare producers of contact allergy.

With the wide use of fabric and various types of film for packaging, it is important to determine the frequency of allergic response to these materials.

The materials tested in this study were as follows:

- Sample A—Type 6 Nylon, High Caprolactam Monomer Content, Knitted Fabric
- Sample B—Type 6 Nylon, Random Fine Fiber
- Sample C—Type 66 Nylon, Film
- Sample D—Type 6, Nylon, Film
- Sample E—Type 6 Nylon, High Caprolactam Monomer Content, Film
- Sample F—Type 6 Nylon, High Caprolactam Monomer Content, Film
- Sample G—Cellophane, Heat Sealing Grade, Film.

METHOD

About one-half square inch of each of the seven materials to be tested was applied to the skin of the patient and covered with elastoplast. Application was made on the upper arm, the thigh, or back. The patches were left in place for two days, then removed, and the reaction, if any, noted. The area was again checked two days later. The final reading was always made four days after the material had been applied. After a period of two weeks, a second test was made, identical to the first.

The patients varied in age from 3 years to 50 years, divided fairly evenly among males and

females, adults and children. Eight of those tested were suffering either from atopic dermatitis or eczema of the contact type. The tests were completed on 184 persons. On 16 patients only the first test was carried out. In testing programs on large groups of individuals, it is not unusual to have a few drop out before the program can be completed. This may occur for a number of reasons such as illness, lack of time, or change of residence.

RESULTS

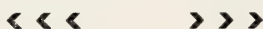
In the total group of 200 patients studied, only one reaction was noted. This occurred with Type 6 Nylon Film with High Caprolactam Monomer Content, Sample F. Even in this case the reaction was only slight and not sufficient to photograph. This positive reaction occurred in the daughter of one of us.

CONCLUSIONS

It is well known that contact allergy may follow a wide variety of substances. It may be expected that in any group tested about one out of 100 may react to almost any material; hence, the reaction of one in a group of 200 to Nylon Film with High Caprolactam Monomer Content was not unexpected.

In view of the fact that a number of subjects tested were suffering from skin disorders resulting from contact allergy, the results in testing of the film would seem to indicate that allergic responses to these materials will be few.

In view of the widespread use of materials of this type for packaging, it is important that this fact be borne in mind, and packaging materials not be blamed when allergies occur due to other materials. From the standpoint of the production of either an allergic reaction the materials tested can be considered safe.





Treatment of Burns of the Eyelids

ROBERT G. TAUB, M.D., CHICAGO

IMPORTANT objectives in the treatment of burns are prevention of infection, wound cleansing or removal of tissue debris, and prevention or minimization of scarring. Although a number of antibiotic ointments and several proteolytic debriding agents have been available for the treatment of burns, not until recently has an ointment* become available combining both antibiotics and proteolytic enzymes.

This paper presents a report on the use of this ointment in two cases of burns of the eyelids and upper face. Tryptar® ointment contains two proteolytic enzymes, trypsin and chymotrypsin; and two antibiotics, polymyxin and bacitracin. The enzymes have a natural gift of digesting necrotic tissue without affecting viable tissue. Topical use of trypsin has been well documented. Reiser et al.¹ found it a valuable aid in treating sloughing wounds. Morani² states that trypsin is a highly satisfactory debriding agent, providing rapid, selective, and non-toxic action. Chymotrypsin has much the same properties and combined with trypsin, appears to have an added or augmented action.

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*Tryptar Ointment was supplied by the Armour Laboratories.

Since clean wounds heal properly, it is advantageous to have available topical agents that can clean the wound safely and effectively by digesting the products of tissue injury. Removal of dead tissue reduces the potentials of infection, since dead tissue frequently acts as a medium for bacterial invasion and growth.

Debridement by trypsin and chymotrypsin prepares the wound for maximal action by the topically applied bacitracin and polymyxin. Bacitracin is effective against gram positive bacteria and a few gram negative bacteria. Polymyxin is active against many gram negative bacteria. Selection of these two antibiotic agents is predicated on their ability to withstand inactivation by products of bacterial growth, their relative freedom from allergic reactions, and their effectiveness against organisms commonly found in skin lesions. The enzymes and antibiotics are combined in a special base, which provides ease of application and prevents enzyme loss.

Burns of the face, particularly about the eyes, require special attention because infection and poor healing result in the formation of a scar. Scars of the face and eyelids are not only disfiguring but may interfere with function. The following cases indicate the usefulness of Tryptar ointment for the treatment of burns of the face and eyelids:

P. B., a 25 year old male, suffered a severe

electrical burn, involving the skin of upper and lower lids on September 14, 1956. When the patient was first examined, I noted severe edema of the lids, extending down into the cheeks. The left cornea was opaque. The lids covered the globes satisfactorily and blepharorrhaphy was not indicated. Tryptar ointment was applied to the skin of the lids twice daily from September 14th through September 22. In addition, a 10% sodium sulfacetamide ointment was instilled in the left eye daily. The burns of the lids responded nicely to treatment, there was no secondary infection, and the debriding proceeded rapidly. The patient did not complain of pain during the treatment. At the time of dismissal on September 25, there was no residual scarring of the lids, no cicatricial ectropion or entropion, and no skin graft or secondary plastic repair was necessary. The corneal opacity had cleared by the time of dismissal.

R.S., a 43 year old male, was hospitalized on February 13, 1957 because of thermal burns of first and second degree involving the skin of both upper and lower lids and portions of his face and hands. He had several large bullae on the lids and the face. Tryptar ointment was applied to the exterior surface of the eyelids from February 13 through March 2. The lids responded promptly to treatment and no secondary infection developed. The burns on the other portions of his face were used as a control and were not originally treated with Tryptar ointment. They

did not respond as speedily to conventional measures and, therefore, on February 22, Tryptar ointment was applied. The burns immediately improved and the odor and discharge quickly cleared. He was dismissed from the hospital March 16, 1957. There were no contractures of the lids and no residual scarring. This patient was seen again in August of 1957. The facial burns had healed completely with minimal scarring. There was no cicatricial ectropion or entropion. There was a small area on the left wrist which requiring grafting but the burned areas on the hand had not been treated with Tryptar ointment.

SUMMARY

1. Two patients with burns of the eyelid were treated with Tryptar ointment, an agent that has wound cleansing properties in addition to antibacterial action.
 2. The burns healed rapidly.
 3. The second patient was used as a control; the burn that was treated with the ointment healed more readily than the burn originally treated conventionally.
 4. There was no scarring and plastic repair was not necessary.
- 6 N. Michigan Av.

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This is fame

Physicians get neither name nor fame by the pricking of wheals, or the picking out of thistles, or by laying of plaisters to the scratch of a pin; every old woman can do this. But if they would have a name and a fame, if they will have it quickly, they must do some great desperate cures.

Let them fetch one to life that was dead, let them recover one to his wits that was mad, let them make one that was born blind to see, or let them give ripe wits to a fool—these are notable cures, and he that can do this, and if he doth thus first, he shall have the name and fame he deserves; he may lie abed till noon.—*Paul Bunyan*

Pseudomonas Pyocyaneus Cholangitis

R. A. SHAPIRO, M.D., J. H. SLOAN, M.D., AND S. L. GOLDBERG, M.D., CHICAGO

THE bacterium, *Pseudomonas pyocyaneus*, is an uncommon etiologic factor in suppurative cholangitis. In the series of Cook, et al.¹, this organism was present in only two of 90 cases. This incidence probably is higher where an abnormal communication exists between the biliary and gastrointestinal tracts^{2,3}. The organism most commonly causing suppurative cholangitis is *Escherichia coli*. Other bacteria commonly found in the diseased biliary tract are *Aerobacter aerogenes*, *Proteus vulgaris*, the enterococci, and the clostridial organisms.

Until recently, the treatments of cholangitis consisted of the removal of foreign and obstructive material (such as gallstones) from the biliary tract to provide internal drainage, and providing external drainage through a T-tube or a catheter. Much has been added to treatment by the recent and continuing addition of a variety of new antibiotic agents, plus the constant improvement of techniques that permit rapid and accurate evaluation of sensitivities of organisms to these antibiotics.

Recently, we encountered a patient in whom external and internal biliary drainage were not sufficient for the cure of cholangitis due to *Pseudomonas pyocyaneus* and specific antibiotic therapy was used in an attempt to sterilize the bile. The help this gave the patient and the relationship of a rubber T-tube to the final eradication of the organism proved interesting. We could find no similar case reported in the literature and believe our experience is worthy of report.

D. L., a 66 year old female, in October, 1954, began to have intermittent episodes of chills and fever, the latter ranging as high as 104 degrees F. These attacks lasted 12 to 36 hours and appeared in the beginning at two to three week intervals. There were no other symptoms and continued observation revealed no reason for these episodes. The febrile spells recurred at

more frequent intervals for nine months and then, in July, 1955, right upper abdominal pain appeared with chills and fever. This led to specific diagnostic studies that established a diagnosis of calculous gall bladder disease. She was subjected to a laparotomy—cholecystectomy and choledochotomy—at another hospital. The common bile duct was drained and the patient was afebrile and symptom free until a direct cholangiogram was performed prior to her discharge. Following quickly upon this cholangiogram, fever recurred without pain or jaundice. She was discharged from the hospital with the T-tube in place.

On November 2, 1955, she was admitted to Michael Reese Hospital during a stage of subsidence of a febrile bout. Her rectal temperature was 102 degrees F. and her pulse rate was 80. The white blood count was 11,500 and 78% of the white cells were polymorphonuclear leucocytes. The only physical findings were enlarged nodular thyroid gland, a T-tube in situ, and slight hepatic enlargement.

Intensive laboratory study was not helpful. Liver function studies, blood cultures, and bacterial blood agglutinations were normal. Serum amylase levels were normal and pancreatic enzymes were present in the stool. An L. E. preparation was normal. Chest X-Ray showed a tracheal deviation due to the enlarged thyroid and radioiodine studies and B. M. R. determinations were essentially within normal limits. There were a few casts in the urine and a gamma streptococcus was cultured from the urine.

A direct cholangiogram showed a negative shadow adjacent to the proximal limb of the T-tube. There was no sign of biliary tract obstruction as evidenced by rapid emptying of the injected dye into the duodenum and by the absence of dilatation of the biliary tree. Bile culture showed a mixed flora with *Pseudomonas pyocyaneus* predominating. Coliform bacilli, *Aerobacter aerogenes*, and enterococci

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were found also. *Pseudomonas* was the predominant organism in the stool cultures.

As a first step in therapy, chloromycetin was chosen empirically. One-half gram was given four times daily for 10 days. There was no effect on the febrile course of the disease. Laparotomy was performed 19 days after admission. Exploration of the common duct revealed that the cholangiogram shadow was due to bile salts precipitated on the T-tube. No other stones were found. Fresh cultures of the common duct bile were taken and a new T-tube was placed in the duct. A liver biopsy was taken prior to closure. The organisms cultured (not significantly different from those grown out previously) were submitted to sensitivity tests for various antibiotics. Liver sections showed "organizing peri-hepatitis, peri-cholangiolitis, and degenerating and regenerating liver cells." The patient's recovery from surgery was without event, except for the fact that her febrile status was not greatly improved.

Several days postoperatively, we obtained a quantity of streptonovicin monosodium (Albamycin®), an antibiotic supplied by the Upjohn Company. This product is secreted in the bile in large amount and most strains of *Pseudomonas pyocyaneus* are sensitive to it in vitro. We administered this substance empirically, before the sensitivity studies had been completed, in doses of 500 mg. every six hours. There was no significant effect on the patient's febrile course after six days of therapy. We found that the concentration of Albamycin® in the bile was between 500 and 600 micrograms per cc. of bile, but the organism was not sensitive to the drug even in vitro. Sensitivity studies, when completed, showed that the *Pseudomonas* was moderately sensitive to Neomycin®, and to no other antibiotic tested. By this time, our bile cultures showed a virtually pure culture of this organism. Accordingly, on the tenth postoperative day, Neomycin was started intramuscularly in doses of 125 mg. twice daily. Irrigation of the bile duct directly through the T-tube was begun simultaneously. Ten cc. of a 0.5% solution of Neomycin was instilled four times daily. Within 48 hours the bile became much clearer and lighter. This regimen was continued for three days and was terminated because of the development of a diffuse macular

rash about the head, neck, torso, and upper extremities. The patient's temperature had dropped to 100 degrees F. rectally and never rose above that figure during the rest of her hospital stay, a period of some two weeks. Gantrisin® was given for three days after Neomycin was stopped. The rash disappeared, and Neomycin was restarted, 125 mg. b.i.d. intramuscularly and was continued through the hospital stay without ill effects.

About a week after the Neomycin was restarted the patient was better than she had been since the onset of her illness. She looked well, felt well, and was afebrile and ambulatory. She could tolerate prolonged closure of the T-tube very well. However, fresh bile cultures taken during this period of clinical well being, still showed *Pseudomonas*, but in decreasing quantities. Recalling the frequent association of *Pseudomonas pyocyaneus* infection with the presence of rubber drainage tubes, we began to speculate whether the presence of the rubber T-tube was contributing to the persistence of the positive cultures. On the 24th postoperative day, the T-tube was removed. The fistulous tract was dry in 24 hrs. The patient continued afebrile and well and was discharged eight days later on the thirty-second postoperative day. Three months later she was in fine general condition. Fever had not recurred, liver function tests were normal, and stool cultures showed no evidence of *Pseudomonas pyocyaneus*.

SUMMARY

A case is presented of suppurative cholangitis with *Pseudomonas pyocyaneus* as an etiologic factor. The role of cultures and sensitivity tests with use of proper antibiotic therapy (in this instance, Neomycin) as an adjunct to adequate surgical measures in the treatment of this condition is discussed. The affinity of *Pseudomonas pyocyaneus* to rubber drainage tubes is reaffirmed, and cure is reported following the removal of the tube and antibiotic therapy.

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Erythremic Myelosis

FRANCIS J. TENCZAR JR., M.D., CHICAGO

FIRST Admission (January 1957): A 63 year old white female entered the hospital complaining of weakness and tiredness for six months, shortness of breath, and palpitation for three months, and nocturnal dyspnea for three weeks. She also had noted some abdominal discomfort but upper and lower gastrointestinal studies were reported normal. Ecchymoses occurred over arms and shoulders. During the six months before admission she received 2 units of blood because of weakness.

Physical examination revealed a temperature 99.4° F.; pulse 100; respirations 20; blood pressure 154/78 mm. Hg. There were a few cutaneous ecchymoses. The head and neck were not remarkable, no superficial lymph nodes were palpated, and the lungs were normal. The heart was enlarged and a soft systolic murmur was audible over the aortic and pulmonic areas. The liver and spleen were palpated 2-3 cm. below the costal margins. There was no peripheral edema.

Urinalysis on admission was normal. The hematocrit was 22%; hemoglobin, 7.5 grams per 100 ml.; red count, 2.8 million; white count, 2,350; differential, 21 segmented and 10 unsegmented neutrophils, 55 lymphocytes, 2 monocytes, 7 eosinophils, and 5 basophils; reticulocyte count, 4.1%; platelet count, 60,000 per cu. mm. Moderate anisocytosis and polychromato-

philia were apparent in the peripheral blood film. A sternal marrow aspiration (Figure 1)

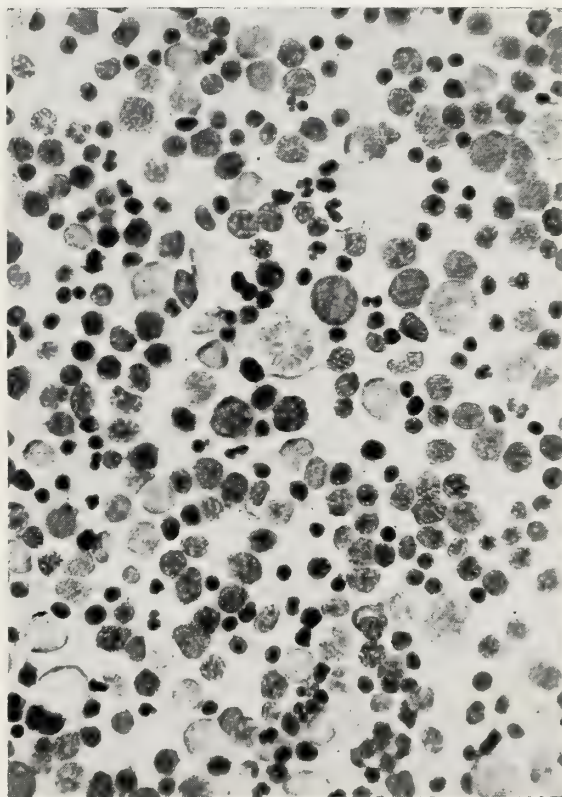


Figure 1. Photomicrograph of aspirated sternal bone marrow smear. Darkly staining erythroblasts predominate. Early abnormal erythroblasts have large nuclei. The paler staining myeloid cells are promyelocytes or myelocytes and segmented granulocytes are scarce. Wright-Giemsa stain. 700x.

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showed marked erythroid hyperplasia with a preponderance of immature erythroid cells. The direct Coombs test was negative.

The patient received 6-Mercaptopurine, cortisone, and 9 units of blood. The hematocrit increased to 38%. The white and platelet counts were unchanged. She improved markedly and was discharged on the 11th hospital day while still receiving 6-Mercaptopurine and cortisone.

Second and Third Admissions: The patient was readmitted to the hospital two and four months after the initial admission because of recurrence of anemia, dyspnea, and weakness. Physical examination was unchanged. The white count ranged from 1,500 to 2,000. A differential count included 15 segmented and 16 unsegmented neutrophils, 57 lymphocytes, 3 monocytes, 3 eosinophils, 2 basophils, 2 "blast" cells, and 2 promyelocytes. There was 1 normoblast per 100 leucocytes. She received a course of aminopterin and numerous transfusions with marked symptomatic improvement. Cortisone was administered without interruption throughout her illness.

Final admission (August 1957): She returned to the hospital because of a severe chill followed by fever and accompanied by upper abdominal pain, nausea, and vomiting. Symptoms had begun the day before admission. Abdominal pain radiated to the back. There were no bowel movements for 2 days.

Physical examination revealed an obese, acutely ill patient. Temperature 103.2° F.; pulse 96; respirations 24; blood pressure 100/70 mm. Hg.; weight 240 pounds; height 5' 5½". There were numerous cutaneous ecchymoses. Draining abscesses were present over the coccyx and on the distal phalanx of the left thumb. The superficial lymph nodes were not enlarged. A few rales which cleared on coughing were heard over the pulmonary bases. The cardiac rhythm was regular but the rate varied from 96 to 120. No murmurs were heard. Both upper abdominal quadrants were tender. No abdominal organs or masses were palpated and bowel sounds were present.

Laboratory examinations revealed a normal urinalysis; hematocrit, 30%; hemoglobin, 10.2 grams per 100 ml.; white count, 6,450; platelet count, 270,400; reticulocyte count, 0.3%; serum amylase, 8 units. Serum electrolytes (mEq./L.)

were: sodium, 129; chloride, 50; potassium, 4; carbon dioxide combining power, 20. A culture of one of the abscesses yielded a heavy growth of *Escherichia coli* and lighter growths of *Streptococcus fecalis* and *Staphylococcus albus*. A blood culture was negative in 48 hours. An electrocardiographic tracing showed atrial fibrillation with a rapid ventricular rate.

The patient was treated with parenteral tetracycline and penicillin as well as cortisone and ACTH. The temperature declined rapidly to normal but the day after admission rales were heard over the right upper lobe and bronchial breathing was noted over the left apex. Her condition worsened rapidly and she died 24 hours after admission.

CLINICAL DISCUSSION

Betty M. Hahneman, M.D.:* Today's case concerns a 63 year white female who entered the hospital complaining of weakness, tiredness, shortness of breath, palpitation, and nocturnal dyspnea. Before hospitalization, X-rays of the gastrointestinal tract were made and she received 2 units of blood. The ecchymoses presumably represented more than the usual bruising tendency for this patient. There was no history of jaundice or exposure to toxic substances or radiation. She was apparently asymptomatic until the onset of the present illness.

Physical examination revealed only a low grade fever, tachycardia, and moderate hepatosplenomegaly without lymphadenopathy.

Laboratory studies showed a normocytic normochromic anemia, leucopenia, and thrombopenia. Examination of the peripheral blood showed anisocytosis, poikilocytosis, polychromatophilia, basophilic stippling, and a moderately elevated reticulocyte count. No macrocytes, spherocytes, target cells, or nucleated erythrocytes were present. The leucopenia was due to granulocytopenia with a left shift. Eosinophils and basophils were increased. The immature granulocytes included myelocytes, metamyelocytes, and band forms.

At this point we are confronted with the differential diagnosis of a marked pancytopenia associated with moderate hepatosplenomegaly

*Courtesy Group, Department of Medicine, Chicago Wesley Memorial Hospital; Clinical Assistant in Medicine, Northwestern University Medical School.

and morphologic abnormalities of the red and white blood cells. We have no evidence of the usual diseases causing splenomegaly — cirrhosis or other hepatic disease, lymphoma, tuberculosis, sarcoidosis, malaria, or acute infectious disease such as infectious mononucleosis. The latter is rarely accompanied by hemolytic anemia or thrombocytopenic purpura.

Apparently the clinicians initially considered the possibility of hemolytic anemia. There was no familial history and the negative direct Coombs test militated against this diagnosis. Moreover, in acute hemolytic anemia one usually find a leucocytosis and, although there might be a marked granulocytic left shift, basophilia is uncommon. One would also expect a greater reticulocytosis and the platelets usually are normal or increased.

So-called splenic pancytopenia should have been considered in view of the palpable spleen. Once again the left shift in the granulocytic series is inconsistent. This type of hypersplenism usually is secondary to another disease.

Pancytopenia may occur in the macrocytic anemias. In this case, the morphology and indices of the red blood cells, the absence of icterus, and the abnormalities of the white cells are not suggestive of pernicious anemia. Certainly this degree of pancytopenia would be uncommon. In addition there were none of the usual clinical symptoms of pernicious anemia or a spruelike syndrome. It would be unusual for a patient with a severe anemia of six months' duration not to receive sufficient vitamin B₁₂ or liver to cause a remission.

Aplastic anemia: This patient gave no history of exposure to substances toxic to the bone marrow. Such a history is not, however, essential. Pancytopenia occurs in aplastic anemia but one would expect a lower reticulocyte count and less granulocytic left shift. Splenomegaly would be unusual.

The myelophthitic anemias due to replacement of bone marrow by tumor or myelofibrosis can produce this clinical picture. There was no evidence of a malignant tumor. In myelofibrosis, the degree of splenomegaly usually is greater than in this patient. Certainly the basophilia as well as the abnormalities of the granulocytes and erythrocytes are consistent with this diagnosis. More nucleated red cells usually are present in the peripheral blood.

Acute leukemia is a more likely diagnosis. Often there is a history of a refractory anemia and this patient was subleukemic when first seen. The abnormal differential count, anemia, and hepatosplenomegaly are in keeping with acute leukemia. It is becoming increasingly evident that acute leukemia should no longer be considered a disease of childhood or young adulthood.

Examination of bone marrow is the critical diagnostic test in this case. Wright-stained smears of aspirated sternal marrow revealed a hypercellular marrow with marked proliferation of early erythrocytes, including many abnormal forms. More primitive reticular or histiocytic cells, some showing characteristics of the erythrocytic series, also were present. Granulocytes were decreased and early forms—myeloblasts and progranulocytes—predominated. Megakaryocytes were decreased. I believe these findings establish the diagnosis of erythroleukemia.

Erythroleukemia, as originally described by Di Guglielmo, was a mixed erythrocytic and granulocytic proliferative process similar to acute leukemia. Erythremic myelosis indicated a pure erythrocytic proliferative process. Since Di Guglielmo's original report it has become apparent that abnormal erythrocytic proliferation often is a phase of acute leukemia. If such patients can be kept alive by various supportive measures—transfusions, steroids, antimetabolites—there often is a transition to granulocytic or monocytic leukemia. In this patient, the abnormal proliferative process involved the granulocytic as well as the erythrocytic series.

Erythroleukemia may occur at any age and many of the patients described in the literature are over 50 years. The usual findings are anemia, leucopenia, thrombocytopenia, and moderate hepatosplenomegaly. Nucleated red cells usually are conspicuous in the peripheral blood but the absence of this finding in this case does not exclude the diagnosis. One may deduce from the protocol that the attending physician also made a diagnosis of erythroleukemia or acute leukemia since the patient was treated with 6-Mercaptopurine. Moreover, on subsequent admissions, occasional immature granulocytes and nucleated red cells were observed in the peripheral blood film.

The final admission was precipitated by the

sudden onset of chills, fever, nausea, vomiting, and upper abdominal pain. There were cutaneous ecchymoses and several abscesses. Unfortunately a blood film is not available from this admission. These signs and symptoms suggest an acute abdominal episode. In view of the previous abdominal complaints and steroid medication for eight months, the possibility of a perforated gastric or duodenal ulcer should be considered.

I also believe the patient had bilateral pneumonia as indicated by the appearance of rales, bronchial breathing, and dullness over the lungs. A recent survey¹ by the National Institutes of Health included bacteriologic or clinical evidence of infection in 66 per cent of febrile patients with leukemia. The usual organisms recovered were *Staphylococcus aureus* and various gram negative rods. Nearly 75 per cent of fatalities during the study were attributed to overwhelming infection.

Finally, the occurrence of weakness, tachycardia, hypotension, and the serum electrolyte abnormalities suggest the possibility of acute adrenal insufficiency. This is likely to occur in a patient who has been maintained on cortisone for a long period and then experiences an acute illness.

DR. HAHNEMAN'S DIAGNOSES

1. Acute erythroleukemia.
2. Bilateral bronchopneumonia.
3. Possible perforation of peptic ulcer with peritonitis.

ANATOMIC DIAGNOSES

1. Erythremic myelosis involving bone marrow, spleen, liver, lymph nodes, heart, kidney, and skin.
2. Bilateral bronchopneumonia.
3. Hemosiderin pigmentation of liver and pancreas.
4. Dilatation and hypertrophy of heart (350 grams).
5. Ulcer of sacrum; abscess of left thumb.

PATHOLOGIC DISCUSSION

Francis J. Tenczar Jr., M.D.: At autopsy there were numerous cutaneous ecchymoses and, as noted clinically, ulcers over the left buttock and thumb. Both lower extremities showed slight

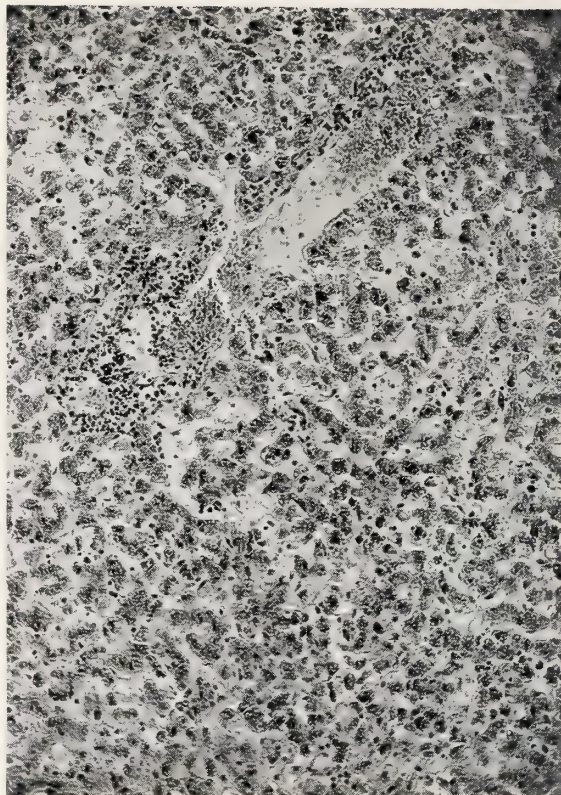


Figure 2. Photomicrograph of liver showing increased portal cellularity and occasional abnormal cells in the hepatic sinusoids. Hematoxylin and Eosin. 120x.

pitting edema. The heart was normal except for slight hypertrophy (350 grams) and dilatation. The lungs weighed 900 grams together. Both lungs contained discrete foci of bronchopneumonia. Both the liver (2,500 grams) and spleen (600 grams) were enlarged but the normal parenchymal patterns were preserved. The vertebral marrow was soft and paler than usual. There was no perforated viscus or peritonitis to account for this patient's abdominal pain.

Microscopically the bone marrow was more cellular than normal. The majority of the cells belonged to the erythrocytic series with many immature forms. The cytologic pattern was similar to the smears of aspirated sternal marrow (Figure 1) discussed by Dr. Hahneman. Small aggregates of hematopoietic cells were encountered in the heart, kidneys, and cutaneous ulcers as well as the portal areas and sinusoids of the liver (Figure 2) and the spleen. Some of these hematopoietic cells could be identified as nucleated erythrocytes. There was moderate hemosiderin pigmentation of the liver and pancreas.

These findings are indicative of a hematopoietic disorder analogous to leukemia but involving primarily the erythrocytic series. Although there is some shift to the left in the granulocytic series, the abnormal erythrocytic proliferation and maturation predominate so markedly it is felt the diagnosis of erythremic myelosis is justified. The terminal septic course of this patient is evidenced by the bronchopneumonia and the cutaneous infections.

Erythremic myelosis is one of a group of myeloproliferative disorders characterized by a primary irreversible systemic erythrocytic hyperplasia with defective maturation. The myeloproliferative disturbances may assume several forms²: 1) Pure erythrocytic proliferation — erythremic myelosis; 2) mixed proliferation of the erythrocytic and granulocytic series — erythroleukemia; and, 3) a polyphasic form with initial erythrocytic proliferation being succeeded by abnormal granulocytic development or vice versa. The etiology is unknown but the most popular concepts include neoplastic and viral origins. The neoplastic nature of leukemia has been acceptable for some time. Recently the concept of a viral etiology has received support from the transmission of leukemia by bacteria-free filtrates in fowls³. The occurrence of different forms of leukemia in fowls inoculated from the same filtrate is indicative of a similarity in the etiology and pathogenesis of the different types of fowl leukemia and suggests that grouping these disorders in man under myeloproliferative disturbances may be justified⁴.

Dr. Wilson Hartz: Diagnosis in this case was established by the bone marrow aspiration which showed an abnormal and nonfunctional erythroid hyperplasia. Treatment was chiefly supportive and any improvement probably was due to cortisone. In the myeloproliferative disorders there

apparently is an abnormal proliferation of a primordial cell which may undergo differentiation in several directions — granulocytic, lymphocytic, myelocytic. The nomenclature depends on the series that is responding to the abnormal stimulus, whatever that may be.

Dr. Paul Winter: Dr. Hahneman, would you classify this case as an acute or a chronic erythroleukemia in view of the fact that the patient lived approximately 15 months after the onset of symptoms?

Dr. Hahneman: Untreated acute leukemia usually is fatal within six months. However, the degree of cellular immaturity in this case is like that encountered in acute leukemia. It is likely the preliminary observations represent a preleukemic phase manifested by refractory anemia. The patient's course also may have been prolonged by treatment with cortisone and anti-metabolites.

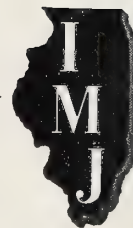
Dr. Paul Rhoads: Is hemosiderosis a common finding in this condition and what is its pathogenesis?

Dr. Tenczar: Hemosiderin pigment of the liver in erythremic myelosis and erythroleukemia is described frequently³. It probably is due to defective erythrocytic maturation, with consequent failure to mobilize iron from body stores. In addition, these patients frequently receive numerous blood transfusions.

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Genetics and medicine

Unprecedented progress in the field of biochemical genetics has permitted, for the first time, a logical approach to the various inborn errors of metabolism in man. Not so long ago we regarded sickle cell anemia as just one of a series of hemolytic anemias. We knew that patients with this disease could be treated by blood transfusions, but did not have the slightest idea as to why their red blood cells sickled or why they had periodic episodes of rapid hemolysis. In 1949, Pauling and co-workers¹ made the monumental discovery that the erythrocytes of these individuals contained hemoglobin with a significantly different isoelectric point and had markedly different solubility properties in the reduced state. Pauling postulated that sickle cell anemia must represent a defect in the structure of the hemoglobin molecule, and for this work he was awarded the Nobel Prize in Medicine. More recently, Ingram² confirmed this hypothesis by showing that the sickle cell hemoglobin molecule differs from normal hemoglobin by having one different amine acid group among some 300 such groups making up the protein molecule.

Other discoveries of this type made it apparent that biochemical genetics had come of age and could be applied usefully at the clinical level in the diagnosis and treatment of hereditary diseases in man. The Genetic Clinic, at the

Children's Memorial Hospital, was formed both to provide service for patients and to undertake research in the general area of genetics as it relates to medicine. The Clinic is supported by a grant from the Chicago Community Trust and is the only one of its type in the State of Illinois.

The Clinic meets every Tuesday afternoon in the Outpatient Department of the Children's Memorial Hospital. Its service functions are threefold:

(1) Patients with any condition of a hereditary nature are given a work-up and diagnosis is established through the aid of extensive laboratory tests.

(2) An outline of treatment is worked out for patients with hereditary disorders that are amenable to specific therapy. For example conditions like galactosemia, cystic fibrosis of the pancreas, or hemophilia, can be helped effectively. As a rule, patients are referred back to their own physicians or clinics for the institution of the recommended treatment.

(3) For parents who request it, genetic counseling facilities are available regarding the probability of the defects recurring following future pregnancies.

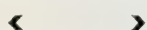
The research program of the Genetic Clinic is directed largely toward the better understanding of certain hereditary diseases at a biochemical level. For a number of years, we have been interested in phenylketonuria, a hereditary dis-

case responsible for about two to five per cent of the mentally defective children in state institutions. By means of a phenylalanine tolerance test, we are able to detect which individuals among the normal population are heterozygous carriers of the abnormal genes³. We can thereby predict which types of matings are likely to produce affected offspring. Workers in England and in this country recently have shown that mental deficiency in this disease can be prevented if affected children are treated by a special diet free of phenylalanine, if started early in infancy⁴.

David Yi-Yung Hsia, M.D.
Director, Genetic Clinic
Children's Memorial Hospital

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3. Hsia, D. Y. Y.; Driscoll, K. W.; Troll, W.; and Knox, W. E.: Detection of the Heterozygous Carrier for Phenylketonuria by Phenylalanine Tolerance Tests, *Nature* **178**:1239, 1956.
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Raleigh C. Oldfield installed as State Society president

Dr. Raleigh C. ("Barney") Oldfield, practicing physician in Oak Park for the last 43 years, was installed as president of the Illinois State Medical Society at the concluding session of the House of Delegates.

Dr. Oldfield succeeded Dr. Lester S. Reavley of Sterling, who served with distinction for the last year.

Born in Chicago, December 9, 1892, Dr. Oldfield obtained his M.D. degree from Loyola University, Chicago, in 1915. He interned in the West Suburban Hospital, Oak Park, joined the staff there, and has been associated with the hospital ever since. He is secretary of the board of trustees and member of numerous hospital committees. He has been on the consulting staff of Westlake Hospital, Melrose Park, for 33 years.

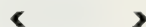
Dr. Oldfield has taught surgery at the Stritch School of Medicine of Loyola University. He also has taught nurses at the West Suburban Hospital.

After his internship, he joined the Aux Plaines Branch of the Chicago Medical Society, took an immediate interest in organizational work, and has been devoting considerable time to the nontechnical side of medicine ever since. He has been a councilor of the Chicago Medical Society for more than 25 years. He has served on the Council of the Illinois State Medical Society and on many committees at state and county levels.

Dr. Oldfield also is a member of the American Medical Association, fellow of the American College of Surgeons and International College of Surgeons, member of the Oak Park Club and Oak Park-River Forest Physicians Club, is a Shriner.

He resides at 539 Jackson Avenue, River Forest, and has offices at 715 Lake Street, Oak Park.

Dr. and Mrs. Oldfield have three children: Dr. Charles Oldfield of Oak Park and Hinsdale, a graduate of the Northwestern University Medical School, a cardiovascular and chest surgeon; Mrs. F. P. Spaulding of River Forest, and Mrs. D. P. Maloney of Chicago. The Oldfields have five grandchildren.



Prognosis of rheumatic carditis

The stethoscope continues to be the most important tool in the diagnosis of cardiac conditions. Feinstein and Di Massa¹ found that during an attack of rheumatic fever, the heart sounds proved extremely valuable in the prognosis. These physicians followed the clinical course of 315 children and young adults to determine what clinical features were most significant in predicting the outcome of an attack of rheumatic carditis. Monthly examinations were made and 78 per cent of the patients were studied for four years or more.

The patients were classified according to the murmurs present during the acute attack of rheumatic fever. In the series, 96 had definite evidence of valvulitis and 63 (66 per cent) of this group now have rheumatic heart disease. "Probable valvulitis" was the designation in 52 patients who developed a questionable diastolic murmur or a loud apical systolic murmur radiating to the axilla without a diastolic murmur. Of this group, 15 (29 per cent) now have heart disease.

1. Feinstein, Alvan R. and Di Massa, Rodolfo: *Clin. Res.* **6**: 220 (April) 1958.



Raleigh C. Oldfield, M.D.
President, Illinois State Medical Society
1958-1959

"No valvulitis" was the diagnosis in 167. These patients had none of the criteria for valvular involvement although many had a systolic murmur, prolonged P-R interval, gallop rhythm, changes in cardiac size, or other features of rheumatic carditis. None of these patients has evidence of heart disease today.



An editorial from other journals—

Trends in medicine

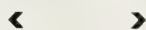
As our medical antennae have become ever more sensitive to the causes of illness and accidents, we are aware that scarcely an illness lacks its emotional component. We have become correspondingly aware that more and more organic illnesses have roots in emotional causes. The bottled-up hypertensive, the ulcer patient who swallows his anger, the attention-getting asthmatic or arthritic, or the rejecting and rejected colitis problem are examples of emotionally caused illness. We are not yet willing to attribute all cause to emotions, for powerful still are bacteria, metabolic abnormalities, and new growths. More and more, however, we accept the mind and spirit as powerful etiologic agents in illness.

Stress is a popular word and a good one. It is stress of work, ambition, fear, and insecurity which we believe causes ulcer or colitis. It is the stress of self-containment and fear which may cause hypertension. Possibly it is the stress of conflict between ambition and accomplishment, between creative talent and expression, which causes arthritis, dermatitis, and allergies. Though there are many still unwilling to accept completely the idea that stress may be the principal cause of an illness, yet most physicians agree that it is a large and vital factor.

We should not eliminate stress from our lives even were it possible to do so, for stress is a necessary spur to achievement and essential to accomplishment. There is stress which is productive, and that which is futile. Stress may become distress. When accomplishment decreases under stress, when physical symptoms appear because of it, then we must decrease the load or run the risk of organic illness.

All of us know individuals whose days are crammed with excitement, problems, decisions, haste and hurry, uncertainty, and tension. Yet they seem serene and remain robust and well, carrying these burdens indefinitely. Stress is the ingredient in their lives which makes such activity possible and keeps them productive to the point of genius, but stress is not distressing. Others of our acquaintance buckle at the smallest decisions and are exhausted by the mildest deviation from routine. Major decisions and emotions are impossible for them. Distress is ailing them, and eventually will obtrude as an organic lesion susceptible to pathologists' classification.

Faith is the factor least measurable in man's total health, yet perhaps most crucial. Faith has literally moved mountains, and there are thousands of patients to testify to the curative power of true faith. Man must have faith to live a full life and without faith life becomes meaningless. No physician has not witnessed the power of faith, and no physician can afford to ignore this tremendous aid in his therapy. We all want and need faith; it is part of the whole man, but often it must be learned. Do I imply that the examining doctor should hold a religious catechism in his periodic examination? Certainly not. But neither do I believe that faith can be ignored as "belonging only to the church." Knowledge of an individual's faith or absence thereof often is of great help in care, and faith must neither be touted nor scorned by the physician. *Charles S. Houston, M.D. Minnesota Med. Mar. 1958.*



Annual meeting draws large attendance

The 118th annual meeting of the Illinois State Medical Society in the Hotel Sherman, Chicago, May 20-23, drew a total attendance of 3,117. Of these, 1,844 were physicians.

Among the attractions were an outstanding scientific program, a House of Delegates meeting which considered questions with a vital bearing on the future of medical practice in this state, and scientific exhibits which were most informative.

In opening the House of Delegates, Dr. Lester S. Reavley of Sterling, president, pointed out that the delegates were convened under principles laid down by the founding fathers of this nation, that is, "equal representation in the

development of policies which are designed to express the will of the majority, if not the whole."

ACTIONS OF HOUSE

Among the actions taken by the House of Delegates were the following:

(1) Approved a recommendation that the Advisory Committee to the United Mine Workers be dissolved and a new Third Party Plan Committee be named to consider policy governing all "third party" problems.

(2) Adopted a resolution providing (a) that the Society inform the Illinois State Legislature of the need for more I.P.A.C. funds; (b) that efforts be made to renegotiate the contract with I.P.A.C., the fee schedule in particular; (c) that I.P.A.C. notify clients in writing as to the limitations of service imposed upon physicians by the commission, and (d) that in disciplinary action each accused physician shall receive a hearing before three of his colleagues in an effort to solve problems on a local level.

(3) Approved a resolution that "the AMA instruct its representatives on the Joint Commission on Accreditation of Hospitals to defend and enhance the role of the physician and the county medical society in medical matters in their own community, and recommend that the county medical societies be consulted whenever possible in matters of accreditation."

(4) Condemned the practice of some hospitals in assessing medical staff members for building funds and requiring audits of staff members' financial records; resolved to present such a resolution to the AMA House of Delegates.

(5) Passed a resolution to ask the AMA to make a study of licensing practices with the aim of establishing uniformity among states recognizing reciprocity.

(6) Enlarged the voting membership of the House of Delegates by adding: (a) past presidents, (b) general officers of the AMA and members of the AMA House of Delegates from the Illinois State Medical Society, and (c) the president, president-elect, vice presidents and secretary-treasurer. This adds about 30 members by giving county societies opportunity to elect other physicians in place of these.

(7) Rejected a proposal to establish two new offices—a presiding and alternate presiding officer of the House.

PRESIDENTIAL ADDRESS

Dr. Reavley, in his presidential address before the General Assembly, said more physicians manifest a faith in God when they face trying emergencies than is admitted.

Such faith, Dr. Reavley said, often opens up the facets of usefulness by which the physician's work is more fully realized.

"No other profession has such frequent reminders that there are powers of life which transcend man's capacity to control," he said. "We know very little about its source, or when or how it comes. We can observe and measure the physiological and material concepts relating to life, but its terminus is as baffling as its beginning."

Dr. Reavley said physicians should "feel a participating partnership in God in His wise desire that all men should enjoy the abundance of a full and healthy life."

(The complete text of Dr. Reavley's address was published in the June issue of the Illinois Medical Journal.)

DR. OLDFIELD INSTALLED

Dr. Raleigh C. Oldfield of Oak Park was installed as president at the closing session of the House. Dr. Oldfield reminded the delegates that medicine was faced with trying problems on the legislative front.

"With many bills threatening the basic principles of medical practice already in the hopper, the profession will have to present a united front to prevent the application of shackles," he said.

"Socialized medicine has been creeping upon us steadily, making particularly rapid progress in election years when politicians have an eye out for the vote. The Social Security Act is the channel through which the movement is progressing."

Dr. Oldfield cited the Forand Bill as the most dangerous measure facing the profession as its adoption will add about 13 million social security claimants to the government medical care program, further increase the tax load, destroy private health insurance plans, complicate the practice of medicine by making it subject to political whims rather than sound medical principles, and jeopardize the whole economic structure of the country.

He warned that other situations bear watching

as they may affect the traditional free choice of physicians. These include Medicare and VA medical care. He also said the trend in the Hill-Burton Act administration also must be watched.

ANNUAL BANQUET

The Woman's Auxiliary worked hard to stimulate attendance at the annual banquet. As a result, a capacity audience was present to hear Dr. Carl S. Winters, minister of the First Baptist Church, Oak Park, and world traveler and lecturer give a talk on "The Doctor's Glory Road" which held everyone's rapt attention from beginning to end.

Dr. Reavley presented the Society's annual awards for distinguished lay contributions to health progress in Illinois. The individual award went to Miss Louise Hatcher of Springfield, supervisor of the medical division, Illinois Department of Registration and Education. The Illinois Health Improvement Association was presented the group award, which was accepted by Mrs. John B. Rice of Sheldon, Ill., president of the association.

Dr. F. Lee Stone, immediate past president, was the toastmaster.

SPECIAL EVENTS

Dr. Reavley, in his introduction to the House of Dr. Arthur K. Baldwin of Carrollton, chosen as the "General Practitioner of Illinois for 1958," said the honor was conferred upon Dr. Baldwin for his 34 years of service to medicine in this state.

Dr. Reavley also spoke at the luncheon of the 50-Year Club, composed of physicians with a half century or more of service. A surprise presentation was made to Dr. Andy Hall of Mount Vernon, 93, founder of the club who has 68 years of medical practice behind him.

Dr. F. J. L. Blasingame of Chicago, who this year assumed the general managership of the AMA, spoke at the annual Public Relations Dinner, arranged by the Committee on Medical Service and Public Relations.

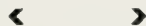
(A complete report of Dr. Blasingame's talk will be found on the PR Page.)

SCIENTIFIC PROGRAM

The scientific program was an outstanding one, consisting of General Assembly sessions and

sectional meetings. Nationally known speakers from all parts of the country presented papers on subjects which covered every important facet of medicine.

Dr. Alexander Marble of Boston, assistant clinical professor of medicine at the Harvard Medical School, gave the annual oration in medicine. Dr. Keith S. Grimson of Durham, N.C., professor of surgery at the Duke University School of Medicine, presented the oration in surgery.



Dr. Joseph T. O'Neill named president-elect

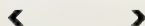
Dr. Joseph T. O'Neill, pediatrician of Ottawa, was chosen president-elect of the Illinois State Medical Society at the 118th annual meeting.

Dr. O'Neill has displayed keen interest in the economic side of medicine ever since he entered his specialty 31 years ago and is especially qualified to assume the presidency of the Society. He became a member of the Council in 1948 and in 1955 and 1956 served as its chairman.

He was born in Boston in 1892. After obtaining his M.D. degree from Loyola University School of Medicine in 1916 he served as a lieutenant in the Army Medical Corps. After World War I, he took up general practice in Joliet. Because of his interest in children, he took postgraduate courses in pediatrics in Europe. In 1927, he began the practice of that specialty in Ottawa, where he has lived since.

Dr. O'Neill was named as one of the original members of the Maternal Welfare Committee of the Illinois State Medical Society when it was formed 25 years ago.

Having approached his specialty through general practice, Dr. O'Neill knows the problems of the GP as well as the specialist.



Scientific awards made at annual meeting

The following scientific exhibit awards were made at the 118th annual meeting of the Illinois State Medical Society:

For educational value: Gold medal, Frederick H. Falls and Charlotte S. Holt, Illinois State Department of Public Health. Silver medal, John M. Coleman and Garth F. Tagge, Mercy

Hospital, Stritch School of Medicine of Loyola University, and Vaughn Medical Group. Bronze medals, George Z. Wickster and Joseph R. Christian, Stritch School of Medicine; John R. Tobin, Cook County Hospital; Donald S. Miller and Rowlin Lichter, Chicago Medical School and Cook County Hospital.

For original work: Gold medal, Alvin L. Watne, Stuart S. Roberts, Ruth G. McGrath, Elizabeth G. McGrew, and Warren H. Cole, University of Illinois. Silver medal, Sean Mullan and William Ironside, University of Chicago. Bronze medals, Cleveland J. White, Stritch School of Medicine; Theodore Cornbleet and Ruven Greenberg, University of Illinois College of Medicine; Walter S. Moos, Radiation and Medical Physics Society of Chicago.

Dr. Gundersen installed as president of AMA

A neighbor and good friend of Illinois medicine, Dr. Gunnar Gundersen, 61 year old surgeon of LaCrosse, Wis., is the new president of the American Medical Association.

Dr. Gundersen was born in LaCrosse in 1897 and began the private practice of medicine in 1922 as an associate of his father. He now operates the Gundersen Clinic, along with three of his physician brothers, Drs. Sigurd B., Alf H., and Thorolf E. Two other physician brothers, Dr. Trygve Gundersen and Dr. Sven M. Gundersen, are practicing in Boston and Hanover, N.H., respectively.

The Gundersen Clinic, which handles 3,000 to 4,000 new patients a year, was established in 1927. It attracts people from all over the United States and is operated in conjunction with the LaCrosse Lutheran Hospital next door. In memory of their father, the Gundersens established the Adolf Gundersen Medical Foundation in 1945. This nonprofit organization grants fellowships to young physicians for advanced study in specialized fields, provides facilities and modern equipment for such studies, conducts investigations into the many unsolved problems of medicine and surgery, and provides free diagnostic services to indigents with complex medical problems.

Dr. Gunnar Gundersen is a past president of the State Medical Society of Wisconsin and Wisconsin Board of Health; former chairman of the

AMA Board of Trustees and Joint Commission on Accreditation of Hospitals, and former member of the University of Wisconsin State Board of Regents.

He is a diplomate of the American Board of Surgery, a fellow of the American College of Surgeons and International College of Surgeons, and a member of the Council of the World Medical Association and Public Health Association.

Dr. and Mrs. Gundersen have two sons, also physicians, and a daughter.

Dr. B. E. Montgomery elected Council chairman

Dr. Burtis E. Montgomery of Harrisburg was elected chairman of the Council of the Illinois State Medical Society, succeeding Dr. H. Close Hesselstine of Chicago, whose two-term limit expired.

Dr. Montgomery was born in Princeton, Ind., in 1898, and obtained his M.D. degree from the University of Illinois College of Medicine in 1933. He interned in St. Luke's Hospital, Chicago, and then took up the general practice of medicine in Harrisburg in 1934.

He has served on the Council for seven years. He also is secretary of the Saline County Medical Society.

Illinois State Medical Society election results

The results of the annual election of officers were as follows:

President-elect, Dr. Joseph T. O'Neill, Ottawa; first vice president, Dr. Lorne W. Mason, Evanston; second vice president, Dr. Paul P. Youngberg, Moline; secretary-treasurer, Dr. Harold M. Camp, Monmouth.

Councilors, Drs. H. Close Hesselstine and John L. Reichert, Chicago; Fred C. Endres, Peoria; Jacob E. Reisch, Springfield; Arthur F. Goodyear, Decatur; Harlan English, Danville, and George E. Kirby, Spring Valley. The Council elected Dr. Burtis E. Montgomery, Harrisburg, as chairman.

Delegates to the AMA, Drs. Percy E. Hopkins, Warren W. Furey, and Carl F. Steinhoff, Chicago; C. Paul White, Kewanee, and Burtis E. Montgomery, Harrisburg. Alternate delegates, Drs. Maurice M. Hoeltgen, Leo P. A.

Sweeney, and Norris J. Heckel, Chicago; Harry E. Mantz, Alton, and Lester S. Reavley, Sterling.

Medico-Legal Committee, Drs. Leo P. A. Sweeney, Chicago, and F. E. Bihss, East St. Louis. Committee on Medical Education and Hospitals, Drs. George F. O'Brien and Kenneth C. Johnson, Chicago, and Ward Eastman, Peoria. Committee on Medical Benevolence, Dr. Norman L. Sheeche, Rockford. Committee on Medical Testimony, Drs. Joseph H. Chivers, Chicago, and Peter C. Rumore, Effingham. Grievance Committee, Drs. Arkell M. Vaughn, Chicago, and Willis I. Lewis, Herrin.



Medicine on postage stamps

Recent issues of postage stamps of interest to physicians collecting medical topics include the following:

China (Nationalist)—Three stamps commemorating the 10th anniversary of the World Health Organization show the staff of Aesculapius on the UN symbol background.

Colombia—A 5c Red Cross issue shows nurses placing stretcher patient in an ambulance.

Cuba—Four physicians are shown on a Famous Men series: Dr. Tomas Romy, 2c; Dr.

Angel A. Aballi, 4c; Dr. F. Gonzales del Valle, 10c; and Dr. V. Antonio de Castro, 14c.

Dominican Republic—The double-bar Lorraine Cross is shown on a 1c postal tax stamp to raise funds to fight tuberculosis. Its use on letters was obligatory during April.

Finland—Three Finnish flowers used in medicine—*Anemone hepatica*, *Trifolium pratense*, and *Convallaria majaris*—are the motifs for a set of three TB semipostals.

French Equatorial Africa—The Brazzaville office of the World Health Organization is shown on a 20f stamp commemorating the 10th anniversary of WHO.

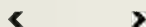
Guatemala—A four value set—1c to 4c—has been issued for the benefit of the Red Cross.

Laos—Four Red Cross stamps show a woman suckling her child.

Luxembourg—Three stamps to commemorate the 13th centenary of the birth of Sr. Willibrord, founder of the Abbey of Echternach, illustrate his healing powers.

Netherlands Antilles—Dutch birds are shown on four semipostals, the surtax of which will provide funds for child welfare.

Romania—A 1.20 lei stamp marks 25 years of sports-physicians' activity.



Optic neuritis

Optic neuritis from nutritional causes must be mentioned. They usually are bilateral and were found frequently among prisoners of war fed on the Japanese rice diet. The tobacco-alcohol type may be a type of this, as these patients frequently are undernourished, though the toxic effects of tobacco and alcohol cannot be discounted. The tobacco-alcohol type frequently is found associated with an undiagnosed diabetes and the field defect is caecocentral with one or two dense nuclei. Treatment consists of abstinence from tobacco and alcohol along with mas-

sive doses of vitamins, especially the B complex.

The characteristic pathological picture of optic neuritis is perivascular lymphocytic infiltration with transudation of plasma leucocytes and red cells into the perivascular spaces. In acute cases there is arteriolar spasm that limits the passage of oxygen to the capillaries, allowing capillary anoxia and dilatation, causing them to become more permeable. This in turn leads to edema and round cell infiltration. If anoxia occurs for a sufficient length of time, necrosis and infarcts may occur. *P. Crain, Jr., M.D. Optic and Retrobulbar Neuritis. J. Louisiana M. Soc. Mar. 1958.*

CORRESPONDENCE



Clinics for crippled children listed for August

Nineteen clinics for Illinois' physically handicapped children have been scheduled for August by the University of Illinois, Division of Services for Crippled Children. The Division will count 14 general clinics providing diagnostic orthopedic, pediatric, speech, and hearing examination along with medical, social, and nursing service. There will be 1 special clinic for children with cardiac conditions, 2 for children with rheumatic fever, and 2 for cerebral palsied children.

Clinics are held by the Division in cooperation with local medical and health organizations, both public and private. Clinicians are selected among private physicians who are certified Board members. Any private physician may refer to or bring to a convenient clinic any child or children for whom he may want examination or consultative services.

- August 1 — Chicago Heights (Cardiac), St. James Hospital
- August 6 — Hinsdale, Hinsdale Sanitarium
- August 6 — Alton (Rheumatic Fever), Memorial Hospital
- August 7 — Effingham, St. Anthony Hospital
- August 7 — Macomb, St. Francis Hospital
- August 8 — Evanston, St. Francis Hospital
- August 12 — East St. Louis, St. Mary's Hospital
- August 12 — Peoria, Children's Hospital (St. Francis)

- August 14 — Springfield, St. John's Hospital
- August 19 — Belleville, St. Elizabeth's Hospital
- August 20 — Chicago Heights (General), St. James Hospital
- August 21 — Elmhurst, Memorial Hospital of DuPage Co.
- August 21 — Litchfield, Madison Park School
- August 21 — Rockford, St. Anthony's Hospital
- August 26 — Effingham (Rheumatic Fever), St. Anthony Hospital
- August 26 — Peoria, Children's Hospital (St. Francis)
- August 27 — Elgin, Sherman Hospital
- August 27 — Springfield (Cerebral Palsy), Memorial Hospital
- August 28 — Bloomington a.m. (General), p.m. (Cerebral Palsy), St. Joseph's Hospital

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Drugs for common ailments

Drug and pharmaceutical companies might well sponsor statistical surveys to show that "big spreads" for good drugs of limited usefulness really do not pay. What might pay them dividends is the support of research for drugs useful in common ailments. Froude stated, "The knowledge which a man can use is the only real knowledge, the only knowledge which has life and growth in it and converts itself into practical power. The rest hangs like dust about the brain or dries like rain drops off the stones." *Howard R. Seidenstein, M.D. A Suburban General Practice New York J. Med. Sept. 1, 1957.*

THE P. R. PAGE

John A. Mirt



Dr. Blasingame calls for new vitality and unity in medicine

There is need for renewed vitality, professional unity, and strong leadership at all levels of organized medicine, Dr. F. J. L. Blasingame, general manager of the AMA, told the annual Public Relations Dinner of the Illinois State Medical Society in the Hotel Sherman, May 20.

"This is necessary not only to provide effective opposition to those things which we consider bad but—more important—to promote positive, constructive action on programs we believe to be good," Dr. Blasingame said.

He stressed that the main tasks of the profession should be: (1) to help assure adequate personnel, facilities, and money for medical progress—"money without the strings of stateism;" (2) to stimulate fresh thinking and new approaches in medical education, training, and research; (3) to improve and co-ordinate the channels of scientific communication; and (4) to promote the fullest possible development of postgraduate education for keeping physicians abreast of the latest advances.

"Our most serious, most troublesome challenges in recent years have arisen in the socio-economic-legislative areas affecting medicine," Dr. Blasingame said. "Here the problems involve questions of how to organize and finance medical services. The essence of these problems is third party interference in the physician-patient relationship and the practice of medicine.

"The most dangerous third party threat arises

from the federal government's expanding role in medical and health affairs. Some leaders in government are sincerely interested in solving problems, real or imaginary. Others are thinking primarily in terms of votes or the promotion of a particular ideology.

"Unfortunately, this mounting political occupation with medical matters has developed over a period of time when there has been a growing tendency to rely on the federal government for the solution of all problems. As a result, each session of Congress brings an increase in the number and variety of medical bills."

Dr. Blasingame traced the liberalization of the Social Security Act in recent years through expansion of the disability benefits program and establishment of a wide variety of service benefits involving medical care. He pointed out that the major challenge now is exemplified in the Forand Bill, that would provide certain hospital, nursing home, and surgical benefits to social security recipients. This would apply to an estimate 12 to 13 million people.

The AMA, he said, has had a special task force at work on all phases of this problem, and added:

"In view of many other national problems, it is a matter of conjecture whether the Forand Bill will make any headway in this session of Congress. Nevertheless, I strongly urge all of you to be alert to this issue."

Dr. Blasingame cited the need for alertness in other fields as well, since expanding federal ac-

tivity appears in many forms. All aspects of the Medicare program demand careful, constant study, because it may have an important influence on future legislation and on medicine's legislative policies.

"The medical profession also has quite a number and variety of problems involving relations with hospitals, medical schools, and medical care plans sponsored by labor unions, industries, and other lay groups," he continued.

"These are numerous and complex, revolving around arbitrary or unfair methods of judging the qualifications and competence of physicians, freedom of choice for patients, interference with the physician-patient relationship, and the ethical nature of contracts."

He pointed out that "labor is on the move and riding high, and medicine is in the path." Labor leaders are building an empire, he said, and \$628 million is going into the coffers of unions yearly, more than is being spent for voluntary health insurance.

Dr. Blasingame emphasized that efforts were made to solve the economic problems of medicine within the framework of private enterprise, and he cited the growth in voluntary insurance as an example of what is being done.

"There is, however, a need for faster, more vigorous action in extending adequate coverage to old people, the rural population, and individuals not eligible for group plans," he said.

"To complete the picture, every state and locality should have an efficient, economical plan of medical care for the indigent so that particular problems cannot be used to confuse the over-all issue of medical care for the people as a whole."

Dr. Blasingame touched on other facets of the AMA program:

(1) The establishment of the American Medical Research Foundation to promote pure medical research;

(2) A study by a Board of Trustees com-

mittee looking toward improvement of the annual and clinical sessions;

(3) Stimulating experimentation in the fields of medical education, graduate training, and postgraduate education;

(4) Development of a bi-weekly AMA News which will provide quick, easy reading of organizational news and socio-economic material;

(5) Appointment of a House of Delegates—Board of Trustees committee to concentrate on four assignments: (a) redefining the central concept of AMA objectives and basic programs; (b) placing greater emphasis on scientific activities; (c) creating more cohesion among national medical societies; and (d) studying socio-economic problems.

"The AMA must grow and change with the times," Dr. Blasingame said. "It must be a living, dynamic institution. It must be conservative, in the best sense of the word, with respect to the ethics, ideals, and traditions of medicine. But it also must be imaginative and progressive in solving the problems of medical economics."

"We are preparing the AMA from the standpoint of management to provide the profession and the public with the finest possible service. We are looking to the individual physician and his state and county medical society to develop sound policies upon which we can build our entire program. Unless you do your job, we cannot do ours."

"By promoting the fullest possible participation in the affairs of organized medicine, and by stimulating the widest possible discussion of medical issues, you can assume that the American Medical Association will become an even more vital, influential force in the life of our nation."

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AT THE EDITOR'S DESK



Triacetin (glyceryl triacetate) is now available in spray and powder form as a fungicide. The product has been introduced by Ayerst Laboratories under the trade name, Enzactin. The vehicle of the spray is a propellant mixture and it is packaged in a pressurized container. The powder has a water absorbent base and is offered in "puffer" packages for dusting between the toes and in shoes and hose.

The psoralens produce a rapid tan by thickening melanin to form in the skin. The individual must be exposed to the sun for a short period to set the process into motion. 8-MOP (8-methoxypsoralen) is a prescription product that promotes tanning even of "the fairest and tenderest skin." It was introduced into this country originally for the treatment of vitiligo and is manufactured by the Paul B. Elder Company of Bryan, Ohio, under the trade name, Oxsoralen. Elder has licensed Upjohn to sell a similar product known as Meloxine.

The Health Information Foundation reports that the admission rate to general hospitals has more than doubled during the past 20 years but the average length of hospitalization per patient has declined from 15 to 9.7 days. There are reasons for this change. Hospitals are being used more and more for diagnostic purposes and everyone who is seriously ill expects hospital care. A survey by the American Medical Association

revealed that of the 8 million admissions a year, two-fifths are for surgery, 1 million for cardiac disease, 720,000 for fractures, and 585,000 for cancer.

Aludrox SA, is Wyeth's new anticholinergic drug that provides essential antacid and sedative action. Combined studies on 338 patients show that 84.3 per cent experienced good to excellent relief of symptoms. Of the cases, 70 per cent had peptic ulcer and the remainder a variety of gastrointestinal disturbances ranging from gastritis to spastic colon.

The Health Insurance Institute conducted a survey on 5,000 executives and found that 58.9 per cent were healthy. Only 8.1 per cent had high blood pressure and 7.6 per cent, heart disease. During the past 15 years, the number of overweight executives decreased by one-third.

The antimalarial drugs, Aralen and Plaquenil, are pushing the quinine derivatives in another field. Zeb L. Burrell, Jr. and Alberto C. Martinez found these products of value in controlling arrhythmias such as paroxysmal tachycardia and ventricular extrasystoles. A favorable response to Aralen was obtained in 18 of 31 patients with auricular fibrillation. According to the report of these physicians in the *New England Journal of Medicine*, the initial dose was

one gm. daily in divided doses, which was increased by 0.25 gm. every third day.

New chemical and therapeutic studies on psoriasis were reported at a New York Academy of Medicine conference. Peter Flesch was able to isolate five distinctive chemical abnormalities in the scales of psoriatic lesions. He found that allantoin dissolved the scales. Sidney G. Clyman and Jacob Bleiberg then reported on the beneficial effects of a combination of allantoin and a tar compound in a lotion base (Alphosyl). The majority of cases cleared completely or improved greatly. Confirmation of this work is needed.

Toa (triacetyloleandomycin) is Roerig's latest medium spectrum antibiotic. It contains glucosamine. Comparative studies show that blood levels average two to six times higher and urinary concentration about 300 per cent greater than obtained with erythromycin.

Pfizer reports, in a news release that its Cosa-Tetracycline cured 45 of 50 women with acute or chronic gynecologic infections.

Bristol's new Japanese antibiotic, Kanamycin, is being marketed under the name Kantrex. The antibiotic is said to be effective against strains of resistant staphylococci.

Parke, Davis will manufacture the APC

vaccine against respiratory infections for use by the armed services next year.

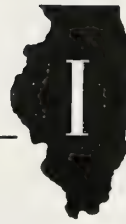
Lilly suspended production of polio vaccine June 1. Its inventory was too large in relation to public apathy toward immunization. One year ago the company had 275 employees working on the vaccine; 215 of these men and women are being shifted to other assignments. Parke Davis, Pitman-Moore, and Merck, Sharp & Dohme also have discontinued production of this vaccine.

Deaner, a new prescription product of Riker Laboratories, was discussed at the annual meeting of the Society of Biological Psychiatry. This antidepressant drug is supposed to increase drive and physical energy. According to the report, Deaner increased muscle tone of medical students as well as their power of mental concentration; it also changed their "sleep habits in that less sleep was needed and they awakened more alert in the morning." Deaner is believed to be a precursor of acetylcholine.

Nicozol (pentylentetrazol and niacin) with reserpine was used in a series of 75 cases of senile psychoses with improvement in 65 (87 per cent). No convulsions occurred during treatment and relief of agitation and restlessness was noted together with improved memory, behavior, sociability, appearance, and tidiness.

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NEWS of the STATE



COOK

EUROPEAN TALK. Dr. Edmund Jacobson, director of the Laboratory for Clinical Physiology, Chicago, spoke on "Scientific Versus Unscientific Methods of Relaxation" at a meeting of the Societe Francaise de Medecine Psychosomatique in Paris, May 5. Dr. Jacobson spoke in behalf of the Foundation for Scientific Relaxation, Inc. of which he is a director.

HOSPITALS. One hundred civic and medical leaders participated in ceremonies on May 26 dedicating expanded facilities of the Rehabilitation Institute of Chicago. The occasion marked the formal opening of the institute's new in-patient hospital accommodations and completion of its \$1,500,000 modernization program. Latest rehabilitation and physical therapy equipment includes a \$50,000 hydrotherapy department, the gift of the Robert R. McCormick Charitable Trust. Dr. Joseph Chivers is director of the non-profit organization which seeks to rehabilitate its patients physically, socially, and vocationally.

Dr. Clifford J. Barborka was installed as Passavant Memorial Hospital medical staff president on June 2. He succeeds Dr. John I. Brewer.

The new medical staff officers at Mercy Hospital are Drs. Joseph E. Laibe, chief of staff; Cornelius Annan, vice-president; and William F. Cernock, secretary-treasurer. Drs. Arkell M. Vaughn and Harold C. Voris were nominated to serve on the Executive Board of the hospital.

1958-59 OFFICERS. Chicago Neurological Society elected the following new officers: Drs. John J. Madden, president; Milton Tinsley, vice-president; and Meyer Brown, secretary.

Chicago Society of Industrial Medicine and Surgery named Drs. Walter J. Phillips, president; George L. Cooper, vice-president; Bille Hennen, secretary; and Charles Drueck, treasurer.

Chicago Ophthalmological Society elected Drs. J. Vernal Cassady, president; Clifford Sullivan, president-elect; Manuel L. Stillerman, vice-president; Joseph S. Haas, secretary-treasurer; Theodore N. Zekman, counselor; and David Shoch, recording secretary.

Chicago Urological Society elected Drs. George O. Baumrucker, president; Cornelius W. Vermeulen, vice-president; and David Presman, secretary-treasurer.

Illinois Psychiatric Society elected Drs. Nathaniel S. Apter, president; Frances Hannett, president-elect; and Paul Nielson, secretary-treasurer.

DEKALB

MEDICAL CENTER. The physicians of the DeKalb Medical Center are occupying their new single story, fireproof building on North First Street Road. The building is airconditioned the year around, and contains 90 rooms. It provides office space for six physicians and surgeons, an eye and ear specialist, and three dentists. There

is a modern clinical laboratory, an X-ray department, and a physical therapy department. The structure is planned to aid the physicians and dentists in giving better care of office patients now, and for later expansion should the needs of the community require it.

FULTON

TALK. At the Fulton County Medical Society June meeting, Dr. Ralph Davis, Quincy, spoke on "Isotopes."

LA SALLE

TOUR. The LaSalle County Medical Society—in place of its usual monthly meeting—made a visit to the Argonne National Laboratories at Lemont, June 12. The afternoon was devoted to a tour of the laboratories, and the scientific meeting followed dinner. Office help, technicians, nurses, and wives of physicians were given a special program.

McDONOUGH

HONORED. Recently Dr. W. E. Carnahan, a physician in Macomb since 1914, was named the city's outstanding citizen by the Chamber of Commerce. At the banquet in his honor, Dr. Carnahan was presented with a document containing the names of 3,097 babies he had delivered during his years of practice in Macomb.

GENERAL

BERTHA GOLDBLATT TEPLITZ AWARD. Drs. Charles Heidelberger and David Pressman have been jointly named the first recipients of a new annual award for meritorious investigation by a scientist under 45 in the field of cancer, awarded by the Ann Langer Cancer Research Foundation of Chicago. The men will share the \$500 honorarium. Dr. Charles Heidelberger received the award for his "Basic Research on 5-Fluoro-Uracil," and Dr. Pressman for "Developing Technique for Labeling Antibodies with Radioactive Isotopes."

HONORARY DEGREES. Three distinguished scientists were awarded honorary degrees by the University of Chicago at the afternoon session of its 278th Convocation in Rockefeller Memorial Chapel on June 13.

The honorary degree of Doctor of Science (D.Sc.) was conferred upon Dr. George W. Corner, member of the Rockefeller Institute for

Medical Research; Dr. Nicholson J. Eastman, professor and chairman of the department of obstetrics and gynecology, Johns Hopkins Medical School; and Dr. Richard E. Shope, member of the Rockefeller Institute for Medical Research.

Considered a leading scholar in the field of mammalian reproduction, Dr. Corner has done much research in embryology which led to detailed studies in the physiology of reproduction. He is best known for his isolation and purification of the pregnancy hormone, progesterone, work done in collaboration with Dr. Willard Allen.

Dr. Eastman, a teacher as well as researcher, has concentrated his work on studies of the human fetus and of the toxemias of pregnancy. In recent years his interests have included the public health aspects of maternal welfare and child health. He has served as chairman of the committee on maternal and child health services of the Children's Bureau and of the expert committee on maternity care of the World Health Organization.

A researcher who has spent his entire career studying animal diseases, Dr. Shope has made important contributions to the fundamental knowledge of virus infections and to the study of cancer. Among his discoveries are the virus of swine influenza and its complicated route of transmission, and two rabbit tumors produced by viruses which are important experimental tools in the study of cancer. He also developed an effective vaccine against rinderpest, a highly contagious disease of cattle.

LECTURES ARRANGED BY THE ILLINOIS STATE MEDICAL SOCIETY

RALPH N. REDMOND, Sterling, senior staff member of the Sterling Community General Hospital, addressed the Bureau County Medical Society in Princeton, June 10, on "The Problem of Sterility."

MARK C. WHELOCK, associate professor of pathology, Northwestern University Medical School, addressed a joint meeting of the White-side and Lee County Medical Societies in Sterling, June 19, on "Extranodal Lymphomas."

JOHN J. BROSNAN, assistant clinical professor in surgery, Stritch School of Medicine of Loyola University, addressed the Stephenson County

Medical Society in Freeport, June 19, on "Diagnosis of Lung Tumors."

RALPH N. REDMOND, Sterling, senior staff member of the Sterling Community General Hospital, addressed the White Eagle Home-makers' Camp in Leaf River, July 1, on "Antibiotics."

CHARLES I. FISHER, associate in medicine, Northwestern University Medical School, addressed the Kiwanis Club of Edgebrook, July 16, on "Physical and Mental Hazards of Aging."

DEATHS

LEON BLOCH, retired, formerly of Chicago, who graduated at Rush Medical College in 1903, died May 14, aged 79. He was a former chairman of the department of medicine at Michael Reese Hospital, and professor of medicine at Rush Medical College.

GERALD M. CLINE*, retired, Bloomington, who graduated at the University of Illinois College of Medicine in 1920, died May 17, in Fort Lauderdale, Fla., aged 61. He had served as consultant in pediatrics for the Illinois Department of Public Welfare.

ELMO E. DILLON*, Homewood who graduated at Northwestern University Medical School in 1927, died May 13, aged 59. He was a member of the staffs of Ingalls Memorial Hospital, Harvey, and St. James Hospital, Chicago Heights, and was an attending physician at the Oak Forest Infirmary.

WALTER A. DZIUK*, Chicago, who graduated at the Chicago Medical School in 1930, died May 21, aged 60. He was a former professor of pathology at the Chicago Medical School and a past president of the Northwest Branch of the Chicago Medical Society.

JOSEPH GALE, retired, Miami Beach, Fla., formerly of Chicago, who graduated at the University of Illinois College of Medicine in 1923, died May 14, aged 62.

NEIL C. GEIS*, retired, Chicago, who graduated at the Chicago College of Medicine and Surgery in 1913, died June 3, aged 70. He was a member of the staff of the Ravenswood Hospital for many years.

MOSE S. GRIFFITH*, Galesburg, who graduated at Miami Medical College, Cincinnati, in 1909, died May 4, aged 75.

DAVID L. HARNETT*, Chicago Heights, who graduated at Northwestern University Medical School in 1926, died May 27, aged 63. He was a member of the staff of St. James Hospital, Chicago Heights.

AIME PAUL HEINECK, Chicago, who graduated at Northwestern University Medical School in 1896, died April 8, aged 88, of cancer of the bladder and arteriosclerosis. At one time he served on the faculty of his alma mater, and on the staffs of the Walther Memorial, Passavant Memorial, and Jackson Park Hospitals.

CLARENCE LOWELL HOBBS, Collinsville, who graduated at St. Louis College of Physicians and Surgeons in 1922 and the Kansas City (Mo.) College of Medicine and Surgery in 1922, died March 23, aged 73, of arteriosclerotic heart disease and cancer of the prostate.

ANTON KNUTSON*, Reynolds, who graduated at the Chicago College of Medicine and Surgery in 1914, drowned May 25 in Parent Lake, in northern Minnesota. He was 73. Internationally known as a big game hunter, he was a member of the Illinois State Historical Society, the International Explorers Club of New York, the Polar Bear Club of London, and the Adventurers Club of Chicago.

ANDREW J. LYONS, a retired Army medical corps major, Highland Park, who graduated at the Chicago College of Medicine and Surgery in 1916, died in Great Lakes Naval Hospital, May 12, aged 83. For 20 years he had been a resident physician at Hines Veterans Administration Hospital.

WILLIAM THOMAS MOFFETT, retired, Blue Mound, who graduated at Rush Medical College in 1895, died February 20, aged 90, of acute cardiac failure.

JOHN P. RINGA*, Chicago, who graduated at the Chicago Medical School in 1934, died May 15, aged 55. He was a member of the staffs of Martha Washington and Walther Memorial Hospitals.

LEWIS H. RUTTENBERG, retired, Lincolnwood, who graduated at Milwaukee Medical College in 1912, died May 11, aged 74. He was formerly assistant chief surgeon of the Chicago Rapid Transit Co. and later served as medical examiner of the Chicago Transit Authority.

GEORGE F. SCHROEDER*, Itasca, who grad-

*Indicates member of the Illinois State Medical Society.

uated from Northwestern University as a pharmacist in 1898 and as a doctor of medicine in 1905, died May 18, aged 80. He was a former village president and trustee of Itasca and was one of the founders of the DuPage Memorial Hospital in Elmhurst. He had practiced medicine in Itasca over half a century.

ROBERT E. SMITH*, Springfield, who graduated at Northwestern University Medical School in 1914, died May 7, aged 68. He had served with the Otis Medical Unit overseas during World War I.

JONATHAN E. WAGGONER, retired, Downers Grove, who graduated at Northwestern University Medical School in 1904, died May 8, aged 83. He was a member of the staff of Swedish Covenant Hospital for 37 years.

ANTHONY OBEDIAH YOUNG, retired, Butler, who graduated at Beaumont Hospital Medical College, St. Louis, in 1893, died February 22, aged 89.

*Indicates member of the Illinois State Medical Society.

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Adverse allergic reactions

The Medihaler with epinephrine is on my treatment table at all times, and it has been used at the first sign of any adverse allergic reaction to an injectable drug. It will stop these reactions readily, and it is more acceptable to the average patient than an injection of adrenalin. It has been used by several of my patients during intravenous pyelograms with complete relief of many of the adverse symptoms which in previous injections had caused considerable distress. It has also been found effective in cases of acute and chronic angioneurotic edema in which there is swelling of the epiglottis or larynx. One of my patients who has had severe anaphylactoid reactions to the sting of a bee, and who had refused desensitization, has been carrying one of these Medihalers with him at all times and has been stung twice thus far without systemic reactions upon using the aerosol immediately after any insect sting. I feel that this device is a simple, effective, and inexpensive way to get epinephrine into the system and should be a part of the doctor's anaphylactic kit. *Alvin Seltzer, M.D. A Useful Device for Treating Acute*

Allergic Drug Reactions—The Medihaler—Epi. M. Ann. District of Columbia, March 1958.

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Liver tests versus biopsy

Blind needle biopsy of the liver has become established since Roholm and Iversen reported the first large series in 1939. It has been used not only for the differential diagnosis of hepatic disease but also to study prognosis and response to treatment and in attempts to correlate structure and function. Waldenstein *et al.* found quite a close association between liver cell damage and positive serum flocculation tests, and between scarring and ascites with a low serum albumin. They concluded that the microscopic appearances of the liver were not an accurate guide to prognosis. It has been suggested that the main value of blind liver biopsy is in distinguishing between "medical" and "surgical" jaundice. In about 15 per cent of cases this differential diagnosis can be difficult; but even biopsy does not always solve the problem. *Editorial. Hepatic Cytology. Lancet Dec. 28, 1957.*

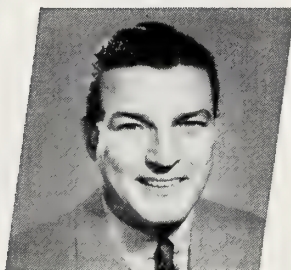


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Each scored, orange tablet of Dramamine-D contains 50 mg. of Dramamine and 5 mg. of dextro-amphetamine sulfate.

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4. Diamant, A. H.: Nord. med. 48:1324 (Sept. 26) 1952.
5. Wendt, G. R., and Cameron, J. S.: Personal communication, Jan. 4, 1955.
6. Stough, A. R.: Personal communication, Aug. 10, 1957.

SEARLE

COUNTY MEDICAL SOCIETY OFFICERS

This list is correct in accordance with the best information obtainable at the date of going to press. County Secretaries are requested to notify The Journal of any changes or errors.

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(Continued on page 51)

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BOOK REVIEWS



CLINICAL LABORATORY METHODS. W. E. Bray. M.D. 5th ed. \$9.75. Pp. 731, illustrations 124, color plates 18. St. Louis: Mosby, 1957.

The main purpose of this book has been fulfilled in bringing together in a small volume for ready reference recent information on and the most frequently used methods of laboratory diagnosis. New tests, or modifications of those already in use, are readily accessible in this convenient laboratory manual. The contents of each chapter are well correlated and important features are emphasized by tables and clear-cut illustrations. The interpretation of the laboratory findings in each instance is given under a special heading. The chapters on urinalysis, hematology, blood chemistry, bacteriology, feces, and intestinal parasites are especially cited for logical arrangement of laboratory procedures. Other chapters are devoted to poisons and foreign substances, indications, stains, staining solutions, mycology, gastric analysis, sputum, serology, water and milk examination, basal metabolism tests, allergy tests, and surgical pathology. Additional material includes radioactive iodine, transaminase, the treponema immobilization test, tests for virulence of the tubercle bacillus, sex differences in nuclei of mature granulocytes, male frog test for pregnancy, and many other recent tests. There is concise presentation of lupus erythematosus, cryoglobu-

linemia, agammaglobulinemia, abnormal hemoglobins, and rare blood types. The large amount of information in a book of this size is impressive, yet it is concise and clearly arranged so that the reader finds what he wants.

L. R. L.

BOOKS RECEIVED

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

A HISTORY OF PUBLIC HEALTH. By George Rosen, M.D., Ph.D., M.P.H., Professor, Health Education, School of Public Health and Administrative Medicine, Columbia University, Editor, American Journal of Public Health. Foreword by Felix Marti-Ibanez, M.D., MD Publications, Inc., New York. \$5.75.

FIFTY YEARS OF NEUROSURGERY, a personal story. By Ernest Sachs, M.D., Vantage Press, New York. \$3.50.

CLINICAL ENZYMOLOGY. Edited by Gustav J. Martin, Sc.D., Research Director, The National Drug Company, Philadelphia. Little, Brown and Company, Boston and Toronto. \$6.00.

CARBON DIOXIDE THERAPY. A Neurophysiological Treatment of Nervous Disorders. Edited by L. J. Meduna, M.D., Professor of Psychiatry, University of Illinois College of Medicine, Chicago. Charles C. Thomas, Publisher, Springfield, Illinois. \$14.50.

CANCER AND THE ATOMIC AGE. By Clement A. Tavares, M.D., Vantage Press, New York. \$3.50.

(Continued on page 56)

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1. Comroe's Arthritis: Hollander, J. L., p. 149 (Fifth Edition, Lea & Febiger, Philadelphia, Pa. 1953).

2. Merck Manual: Lyght, C. E., p. 1102 (Ninth Edition, Merck & Co., Inc., Rahway, N. J. 1956).

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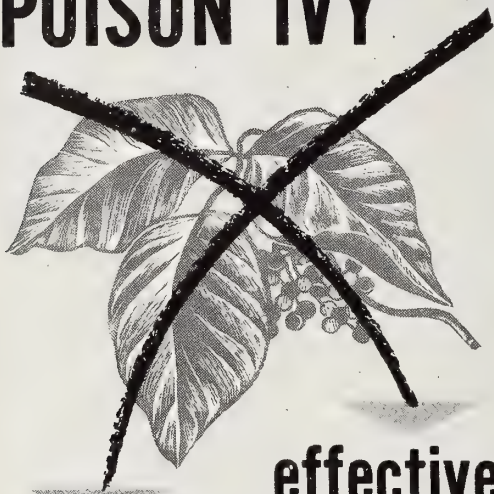
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Literature Available — Please write Dept. 1

BOOKS RECEIVED (Continued)

- MEMOIRS OF A GP. By Otis Marshall, M.D., Vantage Press, New York.
- A PRIMER ON COMMON FUNCTIONAL DISORDERS. Practical Diagnosis and Management by Jack W. Fleming, M.D., Department of Internal Medicine, The Medical Center Clinic, Pensacola, Florida. Illustrations by Jerry Robinson. Little, Brown and Company, Boston and Toronto. \$5.00.
- MAIMONIDES. The Preservation of Youth, Essays on Health, Translated from the Original Arabic, with an introduction by Hirsch L. Gordon, M.D., Ph.D., D.H.L., Philosophical Library, New York. \$2.75.
- MODERN TREATMENT YEARBOOK 1958. A Yearbook of Diagnosis and Treatment for the General Practitioner. Edited by Sir Cecil Wakeley, Bt., K. B. E., C. B. The Medical Press, 7 and 8 Henrietta Street, London, W. C. 2. \$6.00.
- PEDIATRIC INDEX. By Edwin F. Patton, M.D., Beverly Hills, California. A guide to symptomatological Diagnosis and Current Managements. The C. V. Mosby Company, St. Louis. \$13.50.
- MEDICINE AND MAN. The Story of the Art and Science of Healing, by Ritchie Calder. A Mentor Book, published by The New American Library. 50c.
- COMPARATIVE CLINICAL AND BIOLOGICAL EFFECTS OF ALKYLATING AGENTS. Annals of the New York Academy of Sciences. Volume 68, Art. 3. Pages 657-1266. Editor in Chief, Otto V. St. Whitelock.
- A SHORT HISTORY OF ANATOMY & PHYSIOLOGY FROM THE GREEKS TO HARVEY. By Charles Singer. \$1.75.
- HALF LIFE OF RHENIUM AND AGES OF MINERALS. By Stanley N. Naldrett, Department of Chemistry, Royal Military College of Canada, Kingston, Ont., Canada.
- OUTLINE OF ORTHOPAEDICS. By John Crawford Adams, M.D., London. Consultant Orthopaedic Surgeon, St. Mary's Hospital, London. Second edition. E & S Livingstone, Ltd., Edinburgh and London, 1958. Williams & Wilkins Company, \$8.00.
- THE ATOMIC AGE AND OUR BIOLOGICAL FUTURE. By H. V. Brondsted. Translated by E. M. Huggard. Philosophical Library, New York. \$2.75.
- FAT CONSUMPTION AND CORONARY DISEASE: The Evolutionary Answer To This Problem. A basic approach to the prevention and arrest of coronary disease. By T. L. Cleave, M. R. C. P. (Lond.), Surgeon Captain, Royal Navy. With a foreword by Dr. Percy Stocks, C. M. G., Philosophical Library, New York, \$2.50.
- LABORATORY MEDICINE — Hematology. By John B. Miale, M. D., Professor of Pathology, University of Miami School of Medicine, and Director of Clinical Pathology, Jackson Memorial Hospital, Miami, Florida. 192 illustrations and nine plates, including five in color. The C. V. Mosby Company, St. Louis, \$13.75.
- DRUGS OF CHOICE, 1958-59. By Walter Modell, M. D., Editor, Associate Professor of Pharmacology, Cornell University Medical College. The C. V. Mosby Company, St. Louis. \$12.75.
- PHARMACOLOGY IN MEDICINE — A Collaborative Textbook. Second edition. Edited by Victor A. Drill, Ph. D., M. D., Lecturer in Pharmacology, Northwestern University Medical School, Professorial Lecturer in Pharmacology, University of Illinois College of Medicine, Director of Biological Research, G. D. Searle & Co. \$19.50.

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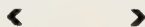
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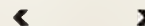
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The Month in Washington



Washington, D. C. — For the first time since the idea was proposed more than seven years ago by President Truman and Oscar Ewing, legislation to tack a hospital and medical service program onto social security has received a thorough airing before a Congressional committee.

For 11 days the House Ways and Means Committee listened to testimony on this and other suggested changes in the law. The hospitalization plan—now identified as the Forand bill, for its sponsor, Rep. Aime J. Forand (D., R. I.)—was by far the most controversial issue. It came up repeatedly and each time was the signal for either sharp questions or praise from Mr. Forand, depending on what the particular witness thought about the bill.

At the end of the hearings, it appeared that a majority of the committee was not inclined to press for enactment of the Forand bill, although there remained the possibility of sentiment change. At this writing, the prospect is that a bill may be enacted to raise both social security and old-age assistance payments, with a \$600 increase in the amount of taxable salary or self-employment income to meet the extra OASI cost; public assistance payments came out of general revenue.

What did the Forand hearings produce?

For one thing, the proponents and opponents lined up in columns to be identified. The one important exception was the American Hospital Association. The AHA specifically opposed the Forand bill “at this time” but left itself room for maneuvering.

The hospital witnesses, Ray Amberg, president-elect of the AHA, and Dr. James P. Dixon, chairman of its committee to study health needs of the aged, said their conclusion was that federal help of some sort was needed to finance the health care of the aged, and that the social security approach might be the ultimate decision.

However, for the present the hospital spokesmen proposed that the Ways and Means Committee set up a special advisory committee—health personnel and others—to bring together all information on the health problems of the aged, study the data and make recommendations to the committee before January 1, 1960.

American Medical Association led the parade of opponents of the Forand bill, and its witnesses, Drs. Leonard Larson, a trustee, and Frank Krusen of the Mayo Clinic, were subjected to close but not unfriendly questioning by Mr. Forand.

At one point Dr. Larson, the new chairman of the AMA Board of Trustees, told Mr. Forand: “As chairman, I shall devote all my energies to solving this problem and other problems of medical care plans in general. This is my primary interest. I rise or fall on what happens in this field.”

Lined up with the AMA in opposing the Forand plan (in addition to the AHA) are the American Dental Association, Blue Shield, the insurance industry in general, the U. S. Chamber of Commerce, and a number of other business and professional groups.

(Continued on page 30)

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WASHINGTON (Continued)

The AFL-CIO appears to be the backbone of forces working for the Forand bill. Labor's spokesmen, however, have the backing of several welfare organizations (plus the Illinois and Massachusetts welfare directors), the American Nurses Association, and the Physicians Forum, among others. The latter group also informed the committee that it favors compulsory social security coverage for physicians.

NOTES

A highlight of a testimonial luncheon for Surgeon General Burney was the first public appearance of Dr. Gunnar Gundersen as new AMA President. Dr. Gundersen praised Dr. Burney as a public health officer and as a government official who did not lose contact with the private medical community. The affair was in recognition of Dr. Burney's election as president of the World Health Assembly.

For the time being, neither doctors nor hospitals will have the exclusive radio frequencies they are attempting to obtain. They were tem-

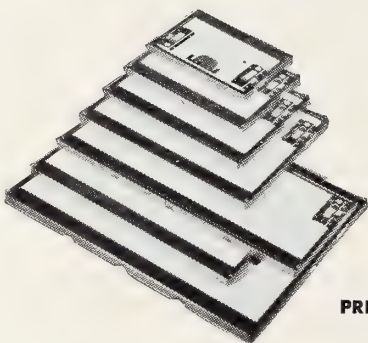
porarily turned down by the Federal Communications Commission in one category, but will continue their efforts to obtain the frequencies for emergency as well as day-to-day communications.

It was late in the session before Congress indicated it would continue the Hill-Burton program; legislation virtually certain of enactment would extend the operation for three years, and authorize long-term loans to non-profit sponsors who for religious or other reasons do not want federal grants.

Internal Revenue Service has ruled that physicians on full-time staff basis with hospitals do not have to include in their U. S. income tax returns money received from patients, when the checks are indorsed over to the hospital.

While avoiding "campaigning against smoking," the U. S. Public Health Service is going to pass on to the public all the information it has on the subject. Its most recent effort in this direction was release of a report, based on studies of 200,000 veterans, that showed a much higher death rate for "cigarette only" smokers.

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Hyperthyroidism in Children

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Thyrotoxicosis with goiter is seen with significant frequency in childhood. It is less common than nontoxic adolescent goiter and hypothyroidism. About one per cent of all cases of hyperthyroidism occur before age 14.¹ For this reason, there has been less opportunity to evaluate therapy in children than in adults. Long term studies are needed to assess the effect of puberty and adolescence in children who have had remissions. Eleven hyperthyroid patients have been observed by us during the past six years in the Pediatric Endocrinology Clinic, at the University of Illinois College of Medicine. The patients, 10 girls and one boy, ranged in age from 3 to 12 years at the time of onset of symptoms.

ETIOLOGY

The etiology of toxic diffuse goiter is subject to continued investigation. Infection, creating increased requirements for thyroid hormone, is represented by a compensatory effort by the gland. A constitutional basis for hyperthyroidism and for pathology of the entire endocrine system has not yet been elucidated.² A true

hereditary factor, a recessive character, appears to have been established for toxic diffuse goiter, but no proof was obtained for toxic nodular goiter.³ Thyrotropin has been implicated as a cause of goiter and hyperthyroidism. Dobyns and Steelman⁴ feel there is a separate fraction of pituitary hormone that causes exophthalmos. Werner et al.⁵ present evidence that hyperthyroidism is not due to thyrotropin and that the undescribed cause arises in the thyroid gland. The consistency with which emotional disturbances are found to precede the onset of hyperthyroidism would seem to be evidence of critical significance in its etiology, though this does not prove the existence of an etiologic relationship between the two. But increasing evidence adds to this probability.⁶ The stresses of growth and puberty are important factors in childhood thyrotoxicosis.

Simple goiter virtually has disappeared due to the use of iodized salt. Deficiency of iodine intake was previously stressed as the main cause of goiter and hypothyroidism.⁷ There is some doubt that this actually is the case. The faulty handling of iodine in the body (absorption, thyroid enzyme action) as a cause of overactivity of the thyroid gland has not been investigated adequately.

PATHOLOGIC PHYSIOLOGY

The pathologic physiology of thyroid disease

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is understood only partially. The following represent the present theories concerning the pathways in the production of thyroid hormone and the methods of studying those steps:^{8,9}

Iodide, absorbed by the intestine, is trapped and concentrated by the thyroid gland. The thyroid plasma iodide clearance of I^{131} and 24 hour uptakes of I^{131} measure the trapping ability as it is influenced by dietary iodide, renal iodide clearance, and thyroid blood flow. On the whole, these tests are satisfactory measures of the ability of the thyroid to trap iodide.

The second step of thyroid hormone production is the organification of iodide or the oxidation into organic iodine which combines with tyrosine to form, in turn, moniodotyrosine, diiodotyrosine, and finally thyroxine. Failure of organification occurs congenitally in certain familial cretins, while blocking of this step is the mechanism of action of thiouracil and mercaptoimidazole. The amount of I^{131} remaining one hour after thiocyanate has cleared the thyroid of all iodine not yet organically bound provides a measure of thyroid organification. Within the thyroid, the hormone is stored in the thyroglobulin. Abnormalities of thyroglobulin have not been described with certainty. However, it is thought one form of congenital goiter may be due to an abnormality in the breakdown of thyroglobulin, such that diiodotyrosine is not deiodinated and accordingly appears in the blood stream.

Tests of the actual rate of thyroid hormone secretion remain complex and inaccurate. The rate of degradation of the hormone in the tissues may be ascertained by testing the amount of PBI- I^{131} persisting for 15-20 days after giving labeled thyroxine. In Graves' disease and nephrosis, such degradation appears increased. In the blood stream, thyroxine is carried bound to an alpha globulin. This bond results in a slow release of thyroxine, a fact that may explain the slower action of thyroxine or desiccated thyroid as compared with triiodothyronine.

CLINICAL PICTURE

Toxic goiter ordinarily presents little or no difficulty in recognition. We have encountered it in one child as early as 3 years, though its most frequent occurrence in pediatrics is in the years just prior to adolescence. The well known symptoms of nervousness, weight loss despite

large appetite, heat intolerance, exophthalmos [not infrequently asymmetrical], and goiter were found in all our patients who had Graves' disease. On examination, the gland was found diffusely enlarged [three were nodular] and showed either a palpable thrill or auscultatory bruit.

The clinical picture in childhood is very similar to that in adults. Two interesting differences occur occasionally,⁷ especially if severe toxicity persists for months or years: (1) extra skeletal growth (height, advanced bone age), and (2) depression of gonadal maturation (delayed menarche, menorrhagia, menorrhagia). Complications of diabetes mellitus and auricular fibrillation may occur. Thyroid crises are much less common in children than formerly, as a result of early control with thiouracil, iodine, bed rest, sedation, and better surgery.

DIAGNOSIS

Diagnosis was unequivocal in every case, although the severity and symptomatology varied. All had enlarged thyroid gland and the characteristic cardiovascular manifestations of rapid bounding pulse and wide pulse pressure. All in this group, with one exception, had eye signs varying from separation of the eyelids to frank proptosis.

Confirmation of the diagnosis was obtained with radioactive iodine uptake since 1950, and in more recent years with serum protein-bound iodine measurements. This latter test is most useful. Elevated values of 9 to 20 or more $\mu\text{g}/100\text{ ml.}$ are seen. The basal metabolic rate is least used because, to yield informative results, a high degree of co-operation is required on the part of an already disturbed child.

GOITER IN OTHER CONDITIONS

(Table 1) Crawford estimated in 1956¹ that 16 per cent of new admissions to the adolescent endocrine clinic at Massachusetts General Hospital were for various types of goiter. Although thyrotoxic goiter is receiving chief consideration in this discussion, five other types will be mentioned; goiter, goiters of adolescence and lymphocytic infiltration, the goiter of defective thyroxine synthesis, and thyroid carcinoma. Iodine deficiency goiter has become so rare in this country as to deserve no more than mention.

Goiters in newborns are seen most frequently in infants born of mothers receiving iodides for

TABLE 1
PATIENTS STILL RECEIVING N-PROPYLTHIOURACIL (PTU)

Patient	Age of Onset		Present Age		Duration of Treatment		Enlargement of gland		Exophthalmos		Response of Goiter to PTU and thyroid
	Year	Month	Year	Month	Year	Month	Before Treatment	Now	Before Treatment	Now	
L.S.	1	2	5	5	2	10	+++	+	++	+	
N.G.	9	7	12	10	2	7	++++	+	++	+	no change
N.H.	9	11	9	8	3	2	++++	+	++	++	no change

hay fever or asthma, or of mothers being treated for thyrotoxicosis with one of the thyroid synthesis blocking agents. Spontaneous regression of the goiter usually occurs in a week or two, although mechanical compression of adjacent structures — trachea, esophagus and great veins from the head—may require simple division of thyroid isthmus by surgery.

The commonest of all forms of goiter, the thyroid enlargement seen in adolescent girls, is the most mysterious etiologically. The treatment advocated, recognizing its flimsy basis in the absence of a better understanding of the causation of adolescent goiter and Hashimoto's lymphocytic thyroiditis, is desiccated thyroid. This must be given in full doses for at least a year to reduce its size. The aims of treatment are to achieve attractiveness, alleviate hypothyroidism if present, prevent nodule formation, and in case of Hashimoto's struma, to reduce the likelihood of late development of a functionless gland.

Goiters of defective thyroid synthesis are notably congenital, hypothyroid, and nodular.

Thyroid carcinoma^{19,20,21} is a rare entity in childhood. Usually no signs of metabolic disturbance are present. Metastases to the cervical nodes lead to the most frequent presenting complaint of cervical adenitis. Nodules in the thyroid substance of child or adolescent, particularly if solitary, undergoing change in size or associated with vocal cord paralysis are malignant more frequently than not. A dictum has developed that all such discrete nodules should be biopsied. When a diffuse goiter fails to respond to adequate suppressive doses of thyroid, an open surgery biopsy is indicated.

TREATMENT

The choice of treatment for hyperthyroidism in childhood depends upon the severity of toxicity and its duration. If toxicity is mild to moderate, we agree with Reilly,⁷ Van Wyk,¹⁰ Kunstadter,¹¹ and Allen,¹² that medical management should be tried.

Either propylthiouracil or methimazole was

used in these patients. Propylthiouracil is effective, relatively safe, and widely used. Methimazole (Tapazole®) has a more rapid action and is more potent; the dose is about one-tenth that of propylthiouracil. Patients who do not respond after some weeks of therapy probably have more than mild toxicity. Adverse reactions to propylthiouracil have varied between 1.5% and 10%. Toxic reactions^{13,14} usually are mild. Toxic reactions to the antithyroid drugs in this series included joint swelling and nausea in one patient after methimazole, and fever and leucocytosis in one patient after iothiouracil. Mortality with thiourea derivatives is practically nil.

The starting dose of propylthiouracil for young children should be 50 mg.; and up to 100 mg. for adolescents, every 8 hours. The patient is kept in the hospital with mild sedation until improvement occurs, usually about three weeks, although a completely euthyroid status usually is not achieved for two to four months. The subsequent assessment of thyroid status can be based on clinical appraisal, and the dosage regulated accordingly. Throughout the period of therapy, children attend school and lead normal lives. Over 500 mg. daily may have to be given to arrest thyroid activity. In severe cases, propylthiouracil occasionally brings on euthyroidism within several weeks to several months. When this occurs, the dose should be reduced to one-half or one-third for maintenance over the following six months to prevent recurrence. In 50 percent of severe cases, discontinuance of propylthiouracil is followed by relapse⁷. If thyromegaly develops during treatment and does not subside, small doses of thyroid substance¹⁰ often will reduce it through sparing the gland by inhibition of the thyrotropic hormone. Persons with small toxic goiters have the best chance of obtaining permanent remission from thiourea derivatives¹¹.

Following medical therapy, there are patients whose I¹³¹ uptake remains markedly elevated and who are clinically euthyroid. The PBI can

fall as low as 0.8 gamma per cent under treatment with antithyroid drugs, yet the patient may remain clinically normal. Often this depends on temporal relationships. The PBI will fall faster than the BMR and prior to change in the clinical picture of patients given large doses of antithyroid drug¹⁵. On continued dosage, some eventually will develop myxedema. The same thing is true of a patient who is going to have an exacerbation of toxic symptoms. The PBI rises before the BMR.

In judging thyroid status in the euthyroid or slightly hypothyroid range, clinical examination has proved helpful. Oral temperature, resting pulse, and skin temperature and texture, especially over the extensor surfaces of the forearm and legs, are useful objective indices.

(Table 2) Three of our patients are still being treated with propylthiouracil. All are clin-

ance of therapy for one month, were 57%, 46%, and 44% respectively. Some exophthalmos has persisted in the medically treated patients but the thyroid gland has been reduced considerably in size.

If a child continues to have hyperthyroidism of some duration [for over one month despite attempts at medical control], surgery is advisable. (Table 3) In the first relapse in this condition, medical care (bed rest, sedation, high caloric diet, adjustment of dosage of propylthiouracil) can be started. At least partial remission will occur within four to eight weeks when helped along by a medical regimen, and this is the time for surgical safety. The stage of remission is approached when the pulse is 100 or below, the BMR below +15 to 20, and bruit gone. Propylthiouracil usually is not discontinued and Lugol's solution is given also for seven to 10 days before surgery. Two to 5 drops of Lugol's solution three times a day are recommended. A drop of Lugol's solution contains just over 6 mg. of iodine, which is more than the daily requirement of 50-200 meg. More than this—e.g., large doses of 15 to 30 drops three times a day—should not be used as this will saturate the body and prevent the beneficial aid of iodine for preoperative preparation. Surgeons prefer to limit the use of iodine to this preoperative period.

Surgery consists of leaving 1-5 gm. of thyroid

TABLE 2
DECISION TO DO SURGICAL RESECTION

1. Failure of drug due to toxicity.
2. Relapse after medical remission.
3. Progressive enlargement of thyroid with treatment.
4. Psychic factors in parent or child which make adequate observation during prolonged treatment doubtful.
5. Economic problems of family.
6. Persistence of mild toxicity with adequate drug therapy.

ically euthyroid, requiring continuous propylthiouracil 350 mg. daily (L.S., 3 years); and 450 mg. daily (N.H., 3¼ years and N.G., 2-¾ years), to maintain remission. Their radioiodine uptakes six months ago, after discontinu-

TABLE 3
PATIENTS SUBJECTED TO THYROIDECTOMY

Patient	Age of Onset Year/Month		Duration of Medical Rx. Year/Month	Reason for Thyroidectomy	Postoperative Condition			Duration of Follow-Up Year/Month	
					Metabolism	Exophthalmus	Complications		
D.C.	10	3	2	Toxic nodular goiter	Euthyroid	—	Recurrence		
	10	10	2 3	Recurrent TNG	Hyperthyroid Euthyroid	—	Laryngeal paralysis Recovered	3	5
N.G.	9	6	5	Toxic nodular goiter, unco-operative	Hypothyroid	+	Hypothyroid	1	10
M.J.	7	6	0	PTU unavailable 1934	Euthyroid	+	—		
	27		5	Recurrent TNG	Hyperthyroid Euthyroid	+ + +	Recurrence —	7	
L.W.	11	1	3	Toxic to PTU Toxic to MTZ	Euthyroid	—	—	2	
E.S.	10	9	3	Unco-operative	Euthyroid	—	—	1	11
M.B.	5	4	9	Medical failure Nodularity	Euthyroid	+	—	4	7
R.D.	12	3	2	Unco-operative	Euthyroid	+ +	—	1	9
					Hyperthyroid	+ + +	Recurrence		
D.P.	11	3	1 3	Unco-operative	Euthyroid	—	—	3	

tissue on the posterior capsule, and preserving the parathyroid glands and the recurrent laryngeal nerves. The mortality after competent surgery is less than 0.5 per cent¹. Physical growth and gonadal maturation thereafter are normal. More radical surgery is indicated for children than for adults. Adequate surgery arrests the disease quicker than does medical management.

(Table 4) Subtotal thyroidectomy has been performed on eight of our patients because of nodularity of the gland, toxic reactions to the antithyroid drugs, failure to maintain the euthyroid state on an outpatient basis, or inability to maintain adequate supervision of patient after hospital discharge. Of the patients subjected to

TABLE 4
JUVENILE THYROTOXICOSIS

MANAGEMENT: DISADVANTAGES
MEDICAL
1. Close observation
2. Frequent laboratory tests
3. Occasional sensitivity to antithyroid drugs
4. Failure to co-operate
5. Strict 8-hour schedule of dosage
6. Occasional failure to obtain adequate response.
ADVANTAGES
Careful medical management over 2 or 3 years offers 'cures' to at least 50%—Van Wyk.
Remissions 4 years or longer may be anticipated in 45-65%—Kunstadter.

thyroidectomy, six are euthyroid, one has mild hypothyroidism, and one has recurrent toxic states and is now under radiiodine therapy because of great emotional instability and failure to co-operate with medical management. A second operation was necessary in two patients because of recurrent thyroid nodules. The necessity of long term follow-up of these patients, even after subtotal thyroidectomy, is well illustrated by a hyperthyroid patient in our clinic who was treated at age 7 by subtotal thyroidectomy and, 20 years later, had a recurrence of hyperthyroidism. The other patient with recurrent toxic nodular goiter presented no exophthalmos and is considered not to be representative of classical Graves' disease.

Postoperatively, iodine and propylthiouracil are discontinued and a regimen of full thyroid substitution therapy is begun. After a year patients are given a trial of thyroid. Many will be able to discontinue medication without evidence of hypothyroidism.

CONTROVERSY ABOUT MANAGEMENT

(Table 5) A controversy exists concerning the

TABLE 5
JUVENILE THYROTOXICOSIS

MANAGEMENT: DISADVANTAGES
SURGICAL
1. Occasional relapse
2. Occasional hypothyroidism
3. Surgical scar
4. Risk of temporary hypoparathyroidism
5. Risk of damage to laryngeal nerve
6. Progression of exophthalmos (adults)
ADVANTAGES
1. No prolonged period of preoperative observation
2. Return to euthyroid status in few weeks
3. Infrequent recurrences
4. Minimal interruption of school and social activities
5. Infrequent follow-up visits.

therapeutic management of the thyrotoxic goiter. During the past 10 years antithyroid drugs have been used by Wilkins to treat all children with hyperthyroidism in the Harriet Lane Home Endocrine Clinic. Fifty per cent have had prolonged remission, 25 per cent have required subsequent surgery and 25 per cent are still under medical therapy. Adolescence has not precipitated a relapse in any child who was previously in remission. This group recommends surgery only for children who are sensitive to antithyroid drugs, who fail to co-operate, or who cannot be followed closely. In the remainder, treatment with antithyroid drugs has been continued until there was substantial reduction in the size of the gland. A period of two years of continuous therapy is suggested as the minimal period of treatment. At the endocrine clinic of the Massachusetts General Hospital, Talbot uses antithyroid drugs only for the purpose of establishing a euthyroid status in preparation for surgical subtotal thyroidectomy.

Neither medical nor surgical treatment presents a serious hazard to life. The advantage of medical therapy is that remission from the thyrotoxic state can be induced regularly and maintained indefinitely by careful management over two or three years. This offers satisfactory results in at least 50 per cent, according to Van Wyk¹⁰. Surgical removal of all but 5 per cent of the thyroid substance lessens the percentage of relapses but increases the probability of permanent hypothyroidism. Postoperative supervision, while necessary, requires relatively fewer office visits and laboratory procedures. The child is left with a scar and in most instances will take substitution thyroid therapy once daily for a year. Propylthiouracil administration requires strict, by the clock management with adjustment

TABLE 6
GOITERS IN CHILDHOOD

	HYPOTHYROID	EUTHYROID	HYPERTHYROID
1. NEONATAL GOITER	(TRANSIENT 1-2 WEEKS)	+	
2. ADOLESCENT GOITER AND HASHIMOTO'S LYMPHOCYTIC THYROIDITIS	SLIGHT BEI	+	PBI
3. GOITERS OF DEFECTIVE THYROID SYNTHESIS	+	+	
4. THYROID CARCINOMA		+	
5. THYROTOXIC GOITER			+
6. IODINE DEFICIENCY GOITER	+		

of dosage and observation for toxic side effects which may come two or three years after the patient has been getting along satisfactorily. (Table 6)

The risk of surgical damage to the parathyroids and recurrent laryngeal nerves has been lessened by the skill of the surgical staff. Post-operative hypothyroidism usually is not lasting. Exophthalmos tends to persist following successful management of both types, although it generally is less. We have not encountered sufficient exophthalmos after treatment to warrant direct therapeutic approach to this problem. Severe progressive exophthalmos under medical management would contraindicate surgical resection of the thyroid¹⁶.

At present our choice of treatment is governed by an analysis of each individual case rather than by single methods of management.

FURTHER COMMENTS ON THERAPY

The question usually is raised about the use of radioiodine therapeutically in children. No case of carcinogenesis in man has been reported from use after radioiodine¹⁷. Radioiodine therapy may be proved safe in years to come. Its use then might be prescribed when medical therapy fails and the patient refuses surgery, or if a medical problem such as rheumatic heart disease contraindicates risk of prolonged medical

therapy. In the light of our present lack of information about the possibility of ultimate development of cancer, delayed genetic effects, and depression of gonadal function, we suggest not using radioiodine treatment in children.

TOXIC NODULAR GOITER VS. GRAVES' DISEASE

(Table 7) The clinical picture of toxic nodular goiter differs from that of Graves' disease in a number of ways. While some thyroidologists¹⁵ frequently do not distinguish between toxic nodular goiter and Graves' disease, others feel it is important to do so. The onset of hyperthyroidism of toxic nodular goiter does not seem to be precipitated by emotional factors, there is no exophthalmos, and patients do not have the muscular irritability or the myopathy seen in Graves' disease. Radioiodine uptake studies are likely to give erratic results. The patient's response to the administration of Lugol's solution is notoriously poor, while in Graves' disease, the response is prompt and dramatic. In many, hyperthyroidism seems to begin so insidiously the patient is not aware of the onset of his difficulty.

Patients with toxic diffuse goiter and toxic nodular goiter show the same fluctuations in PBI. It has been shown that the parenchyma of the thyroid gland often is overactive, in addition to the nodule. Thus toxic nodular goiter

TABLE 7
HYPERTHYROIDISM

	Graves Disease	Toxic Nodular Goiter
Physiological Anatomy	Non-adenomatous thyroid tissue is overly active	Adenoma(s) produce excessive hormone
Onset	Usually well defined	Insidious
GENERAL BEHAVIOR		
Clinical Features	Significant emotional instability	Minimum of emotional display
	EXOPHTHALMOS	
	Very common	Rare
	Response to Iodine Administration	
	Dramatic improvement within a few days	Unaffected
		Occasionally toxicity increased
	Increase in firmness of the gland	No change
Recurrence Rate	6.5%	0.1%

Data from: Dobyns, B. M., *Am. J. Med.* 20:685, 1956

TABLE 8
EFFECT OF TRIIODOTHYRONINE ON UPTAKE OF SECOND TRACER DOSE

SUBJECT	% 24-HR.	¹³¹ I UPTAKE	CLINICAL STATUS	INTERPRETATION
	INITIAL	8 DAYS LATER		
NG ♀	32.0	17.3	Euthyroid	Thyroid remnant shows no activity typical of hyperthyroidism
DL ♀	30.9	22.8	Euthyroid	Ditto
RD ♀	38	66	Rapid increase of toxicity	Definite toxicity
MB ♀	26.4	31.7	Euthyroid with moderate emotional lability	Activity consistent with mild hyperthyroidism

might in effect be, and often is, toxic diffuse goiter with incidental nodularity.

THYROTOXIC REMNANT

The actual duration of Graves' disease in the thyroid remnant after surgically induced remission has always been an important problem. The response of the iodine uptake to the administration of thyroid hormone has been used as a test for thyrotoxicosis, for in the hyperactive gland of toxic goiter, increased uptake is not suppressed by this maneuver. Uptake is sharply decreased in euthyroid subjects. These findings have suggested the use of the method for diagnostic purposes¹⁸. The quicker action of triiodothyronine and shorter duration of effect subsequent to discontinuance make the use of this agent preferable to thyroid extract.

Table 8 shows four post-thyroidectomy patients who were subjected to this test. Two were typically euthyroid and one (R.D.) was becoming clinically toxic at the time the test was done. The final patient in the series, M.B., is clinically euthyroid except for emotional lability. Our experience with this test is limited. We plan to explore its anticipated usefulness further.

CONCLUSIONS

Surgical and medical opinions are divided about the treatment of hyperthyroidism in children. The lack of extended patient series, the relative rarity of the disorder in children, and follow-up practices in different clinics vary widely and contribute to the existing differences in point of view.

We are indebted to Dr. Aaron Grossman who has kindly let us include his patients (3) from the Fantus Clinic.)

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Panel Discussion

Methods of Forensic Pathology For the General Pathologist

JERRY J. KEARNS, M.D., CHICAGO, MODERATOR

Identification of Bones

ARNOLD A. ZIMMERMANN, Ph.D., CHICAGO

I AM aware that I have been invited to this panel as a representative of a further ancillary discipline of forensic pathology. I am a general anatomist and cannot claim to be an expert in osteology to the same degree as a physical anthropologist might be. I am interested in developmental anatomy as a whole, which begins with embryology, entails fetal anatomy, and extends its inquiries even into the adult architecture and fabric of the body. I am sure, therefore, that you will understand why I have no exaggerated ideas concerning the value of any information that I can give you. I certainly would not go into the details of describing particular features of individual bones such as a femur or a humerus or of any carpal or tarsal bones. I take for granted that you know these bones when you see them.

May I say at the beginning that I have been impressed by the remarks of experts on this panel as to the available means in the search for solutions of your problems. All I can say is that we are available to you. We would be glad to be of help to any coroner's physician or any pathologist in the State of Illinois.

I show you here a skull specimen that came to me some months ago, quite indirectly and unofficially from downstate through a pathologist whom I know. I understood that the sheriff would write to me but he didn't. I guess the case

was one of limitations of statute. To the pathologist the specimen may not be interesting; to the anatomist it involves problems that you will realize are quite difficult. The specimen is the calvaria or the neurocranial portion of a skull. The specific questions asked were as follows: What age? Race? How long dead? Now, that is quite an order.

Another thing of interest was a lead pellet that came in an envelope. I will ask Lt. Asher later whether that is a bullet or part of one. To me it is just lead, but it had been found inside the skull. The examination of the skull shows a characteristic shot hole behind the right mastoid process with the typical explosive fracture of the inner table of the temporal bone. It appears to be the top of a skull of a person who has been shot. The skull was found in a pond and obviously had been there for many years. From the study of certain endocranial suture lines that are almost completely obliterated, I would say that it is an adult skull. It is a long-headed skull or, at least, its neurocranial box portion. I would say the individual was 35-40 years old.

No questions were asked about the sex. I think that might be rather interesting to know and I would conclude that it was a male skull. How can we tell? Very strongly developed mastoid processes of the temporal bones indicating strongly developed sternocleidomastoid muscles. There is a strongly developed external occipital protuberance and well marked superior nuchal lines, giving evidence of a strongly developed ex-

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tensor musculature of the neck and head, particularly of the semispinalis capitis and other muscles. From these signs I would conclude that this was an adult male, 30-40 years old.

Race? I could not say anything very definitely about that. The colored race cannot be excluded, but since the facial portion of the skull is missing, the facial angle could not be determined. At best, it would remain a difficult problem to state whether this skull portion was that of a colored or of a white man.

That much about a piece of bone that I would like you to examine. From the standpoint of the pathologist, I suppose it is a "dead case." For an anatomist it presents a little problem, and I like it better than the case that Lt. Asher mentioned where, from the length of a femur, the full body size of a man had to be reconstructed and where the police wanted to know whether the particular body measured 5'6" or 5'9". I would find this a difficult task.*

I would like to make some general remarks about helpful points in the identification and age determination of skeletons or parts of skeletons. It is often particularly important to know the age of a bone and whether it was female or male. There are, in the human body, about 800 ossification centers, throughout the developmental period, inclusive of childhood to adulthood. About 440 are postnatal ossification centers. The osseous structures present at birth concern mostly the diaphyses, i.e. the shafts of all the long bones and many centers in the vertebrae and skull bones. In the newborn there are some 270 bony masses. This number is modified because of fusion of various primary ossification centers normally present at birth. Ossification centers appearing after birth are called secondary centers. They concern mainly the epiphyses of vertebrae and of long bones and may be either traction or pressure epiphyses.

Since we know when the secondary centers normally appear, they are of special value in age determinations. We know also when they fuse with each other, before they fuse with the shaft. These are important landmarks for the identification of specific skeletal parts. X-rays, therefore, are of great help. The epiphyseal centers, some of which may represent atavistic bones such

as the coracoid process of the scapula which probably was an independent coracoid bone of a primitive shoulder girdle, appears as late as 20 years of age. Some of the epiphyseal centers fuse with the primary centers as late as 20-25 years of age, e.g. the ischial tuberosity or the crest of the ilium. The number of bones present in middle life usually is 206 but at birth there were 270. During the first and second years, there are about 250 bony units in the skeleton. At 6 years, the number is increased to 300. Epiphyses, carpal, and metacarpal bones come in. At puberty or in the parapubertal years, 14-17, there are 350 bones, and then, in middle age, when secondary fusions have occurred, the sum total of constituent elements in the adult skeleton is stabilized at about 206.

Evidently it is important for us to recognize at what time any of those centers appear. I give you two examples that might be of some use to you. They concern portions of the skeleton that we, as anatomists, would use to come to some conclusion as to age. The only epiphyseal center usually present at birth is the distal epiphysis of the femur. It appears between 7½ fetal months and the first postnatal month. Sometimes the proximal epiphysis of the tibia also is present at birth although it may come in a few months after birth. If both epiphyseal centers at the knee appear in the X-ray film, the skeleton or body under examination is that of a full term mature baby. If only one is found, the chances are 20-1 that the baby is mature, even though it is small. If only one ossification center—for instance, the distal epiphyseal center of the femur, is present and none at the tibia, then one should look for a third center of ossification in the tarsus. In that part of the foot skeleton the calcaneus and the talus usually appear between 7 fetal months and birth. If the distal epiphysis of the femur and an ossification center in the cuboid of the tarsus are present, the chances are again about 20-1, no matter what its size, the baby is mature.

Another example is the rate of appearance and arrangement of ossification centers in the carpus or wrist. The 8 wrist bones behave as epiphyseal centers. One, the pisiform, is not truly an epiphyseal or a carpal bone but a sesamoid bone that develops in the tendon of the flexor carpi ulnaris. Still, there is a wonderful order in the appearance of these 8 bones with relatively little

variability. In a counterclockwise manner or direction, two wrist bones ossify usually within the first year—namely, the capitate and the hamate. In the second year, there usually is no new ossification center. In the third-fourth year, the triquetrum appears distal to the ulna. In the fifth year, the lunate comes in and in the sixth year, the navicular, distal to the radius. Finally, the greater and the lesser multangular bones begin to ossify as late as the 7th year. And so the cycle is closed so far as the appearance of the true wrist bones is concerned. Nothing new is added to the wrist until about the 12th or 13th year, when the pisiform bone sneaks into this whole set of “marbles” in the wrist and ossifies. Two years after Roentgen discovered X-rays, an age scale had already been established, based on the order in which the wrist bones ossify. We now know that it was a little too dramatic and not fully reliable, since it did not take into account the degree of variability which can be established only by a study of very extensive material. In general, female bones ossify a little earlier than male bones, although female pelvic diameters are, on the whole, smaller than those of the male up to puberty.**

I think I am the first panel member to bring our discussion and considerations down to prenatal conditions. A baby may have died for some occult reason. We have to know the age of an aborted or premature fetus, whether it was viable or not. You, as pathologists, have other means of determining that. As an anatomist, I thought it worthwhile to give you our kind of evidence, without going into details of lung floating tests and things like that.

Let's not forget that, as far as important landmarks are concerned with birth as having occurred at maturity or immaturity, the descent of the testes is a medicolegally accepted criterion, so far as I know, for maturity of a boy. The testes descend in the 9th month, sometimes even in the 8th fetal month. If the testes are scrotal, then the baby is mature, as far as I know, no matter how small it may be.

I should like to add something about postnatal growth curves. We have a great deal of information about linear increments and increase in height and in other measurements of the human body from birth to adulthood [total body length, body weight, surface area]. All these things have been carefully established and give us the aver-

age major trends of such dimensions. However, postnatal variability is much greater than variability during intrauterine life. Measurements in infants and children reflect the active response of the growing organism to the numerous exogenous and endogenous factors, some of which did not exist in the constant uterine environment. This individual variability makes it so difficult to say from the length of a femur what the total length of the body would have been, even though we know what the *average* length of a thousand cases would be at that particular age.

I would say that it is more difficult to determine age and over-all body size from a fraction of an adult skeleton as accurately as I could do it for a fetus. We know that the various organ systems, for instance the skeleton and musculature, or the female genital organs, the lymphoid organs, the kidneys, and the heart have characteristic postnatal growth rates. No matter what organ we study, the type of growth, the rate of growth is quite similar in all those organs before birth. After birth, with the tremendous change in the environment and the functional adjustments of the vascular, digestive, and respiratory systems, the various organs acquire distinctive growth rates of their own. These are the reasons why the child, at every age, is not an immature adult in proportions or in topographical relationships. Neither is the infant merely an enlarged fetus. Everything changes and, as we have emphasized, postnatal individual variability is great.

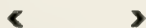
I should like to add one more thing, although it does not particularly concern skeleton parts. I come back to prenatal growth and refer you to a classical work on fetal growth by Scammon and Calkins. They studied fetal growth from the second month to birth in such a biometrically and statistically correct manner, that any age determinations in fetal material of viable or non-viable births can be based largely on that study. A team of examiners made 25,000 measurements on 300 selected fetuses of preponderantly Scandinavian ancestry at Minneapolis, Minnesota. In addition, 10,000 measurements were made to determine the effects of formalin fixation and of birth molding. The basic measurements included not only overall body length of the fetus from the beginning of the 3rd month to birth, but 17 other partial dimensions of the body, such as

face height, cranial height, trunk-length from the jugular notch to the umbilicus, and hand length. It was found that most partial dimensions of the human body before birth bear an exact linear relationship to total body, or crown-heel length.

All these relationships were then expressed by empirical formulae based on the measurements. From those formulae it is easy to calculate crown-rump length or crown-heel length, for instance, from hand length. The length increase of the hand, of the forearm, or of the whole upper limb is directly proportional to the length increase of the body as a whole. Throughout fetal life crown-rump length is about two-thirds of crown-heel length. The exact formula for this relationship is $CR \text{ (cm)} = .66 CH \text{ (cm)} + .5 \text{ cm}$. In further using the fundamental formula by which Scammon and Calkins

established the relationship between crown-heel length and age, the latter can then be determined for any fetus or even from portions of a fetal specimen. The question of viability could then be considered from a rather firm basis of facts.

Obviously, such age determinations are of importance in forensic medicine. In certain circumstances they might point towards foul play and murder. X-ray findings are of additional value since they will confirm age determinations, often in remarkable detail. Unerupted teeth, particularly the pattern of earliest calcifications in the cusps of future deciduous or even of permanent molars, give excellent information (by X-rays) on prenatal age. Yet, the determination of external body dimensions became especially valuable with the introduction of reliable quantitative and analytical methods. They lead us to a further appreciation of the details in the shifting events of human growth.



The Panel Continues

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Human variations

The abilities of 100 one-armed men taken individually are no more alike than the individual abilities of 100 men who are, for example, all 6 feet tall, or all blue-eyed or bald-headed. Put another way, it is no truer that all one-armed men have the same abilities because they

have lost an arm than it is that all bald-headed men have the same abilities because they have lost their hair. Every person in any disability group has his own special combination of remaining abilities, which makes him very much of an individual instead of a group quantity. *Bert Hanman. The Evaluation of Physical Ability. New England J. Med. May 15, 1958.*

Identification of Blood Stains

ISRAEL DAVIDSOHN, M.D., CHICAGO

THERE are two statements in the program with which I would like to begin my discussion. It is stated that this will be a panel discussion on methods of forensic pathology for the general pathologist. I will come back to that a little later. Then it is stated, that it is to be "a review of methods of collecting and disposition of evidence and other examinations that may be available when pathologists are called for a medicolegal autopsy." "The discussions are planned to be practical and helpful."

In other words, this discussion of the identification of blood stains is meant to be an adjunct to a medicolegal autopsy. If that were the case, then many of the problems with which forensic pathologists are confronted in this work would be practically nonexistent. We would obtain the stain or the material to be identified within a reasonable time after the autopsy, let us say 1, 2, 3, 4 days, maybe a week. We could do with it exactly the same as we do with fresh blood. We could prove the presence of all substances that we find in fresh blood. Unfortunately, the situation is different. You remember that Lt. Asher spoke of a void that he knows to exist at the beginning of the examination of a case of the nature we are discussing here. With regard to the interpretation of blood stains, it is mostly an afterthought; we seldom are given materials that have been obtained at the time of the autopsy. That is what we must keep in mind in connection with some of the problems we will be confronted with.

There are three questions we have to answer, when we are given a stain for identification. Most of the time, it is a piece of clothing or underwear. I have had specimens brought to me that showed the presence of a few specks of brownish color, maybe $\frac{1}{8}$ th of an inch in size, rarely larger. The first question that we have to try to answer is, is it blood? Not everything that looks like blood is blood. Inspec-

tion with the naked eye might help. Microscopic examination is something that the clinical pathologist can do easily, and this may throw valuable light on the problem. From the microscopic examination, for example, we may be able to recognize, if the morphology of the blood cells is preserved, that we are dealing with bird blood and not human blood. We may recognize, in the case of human blood, whether it comes from the vagina or from the upper respiratory tract, by finding certain substances mixed with the blood.

Next come chemical tests used for identification of blood. The technique of the preparation of the material is important. The benzidine test, leukomelachite green, phenolphthalein, and other tests have been suggested. They are all highly sensitive, particularly the phenolphthalein test, but they are not specific. Various substances of vegetable and chemical origin give a strongly positive reaction with these tests. For example, horseradish is a well known example of a substance which gives a reaction just as strong as blood. The luminal test is highly sensitive; it is used in the form of a spray and is particularly applicable to the detection of blood stains on hard surfaces such as metals. However, the test has to be done in the dark. It gives a more characteristic and stronger reaction with old than with recent blood stains. It is not specific because various substances, including copper, give a positive reaction. The merit of this luminal test is that, after one has done it, the material can be used for other tests, including the serologic tests. The value of these tests is mostly for exclusion purposes. If they are negative, blood is excluded, even after alterations brought on by washing unless vigorous washing was used.

Recently it was suggested that when all these tests are done, and they are all positive, we can assume we are dealing with blood because-whereas they are nonspecifically positive for various

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substances — these substances do not react identically with all the tests done simultaneously. A positive result with several tests done at the same time on the same material is extremely valuable.

The methods that are specific are those based upon the production of crystalline substances. There are several old ones, for example, the well known test for hemincrystals that has been criticized recently. There are various new modifications. There also is the spectroscopic method. On the whole, this procedure does not present serious difficulties.

After it has been determined that the stain is blood, the next question is, is it human blood? Here, precipitating serums are used. These serums are produced by immunizing rabbits with human serum, also with human hemoglobin because in some instances a positive test may be demonstrated, using an antihemoglobin serum when the results were negative with a serum against human serum. The serum has to be tested, standardized, highly sensitive, and highly specific.

The best setup of the test is still the one suggested by Dr. Hektoen about 1918. The procedure he outlined has not been improved as yet. An extract of the blood stain is prepared. The solution has to be about 1:1,000. Since frequently we deal with dried material, the estimation of the concentration is rather rough, but there are ways of preparing a solution that is approximately 1:1,000. We get a fairly accurate estimate by doing the so-called foam test and nitric acid test. One may use the so-called ring test in a narrow test tube by putting in some of the extract and then underlaying it with the antiserum and getting the reading in the form of a ring or use a mixture of the two reagents and get a diffuse opacity.

Controls are extremely important in this work, because that is the only way to avoid misleading results. The first control is normal rabbit serum with the same extract to see whether normal rabbit serum will not give a reaction, as may happen. The most important control is the preparation of an extract from the unstained portion of the clothing. This refers particularly to the clothing in close contact with the skin. If the bloodless part of the garment gives a positive reaction to the antiserum then the result is entirely unreliable. Negative controls must be em-

ployed such as salt solution added to the antiserum as well as positive controls such as known blood or serum. Finally one has to use as controls a variety of immune serums produced against proteins other than human (chicken, rabbit, etc.), depending upon the circumstances of the case, because problems requiring such a setup frequently enter into the picture. The precipitin test is highly sensitive and as a rule there is no difficulty in demonstrating the presence and the nature of the blood. If the procedure described here is followed and suitable controls are introduced, there is no special difficulty about it.

After showing that the stain is blood and that it is human blood, we try next to determine the blood group. Here is where real difficulties start. Let us assume first we are dealing with material that was obtained at an autopsy, material that is relatively fresh, not older than from 2 to 3 weeks, and not too heavily contaminated. We try to establish the presence of isoagglutinins and of agglutinogens. Isoagglutinins are tested for in several ways. The one I am most familiar with is to bring the material, let us say a natural blood crust found on the clothing, or an artificial blood crust that can be produced in certain ways, in contact, on slides, with a drop of blood of each of the three groups, A, B, and O. Subgroup A_1 is the more sensitive of the two subgroups A_1 and A_2 . Use a 2% suspension of each blood and the crust and cover each slide with a coverslip. The result may be illustrated by the following hypothetical case:

At the borderline between the drop of blood of group B and the crust there were small clumps indicating that the blood contained anti-B agglutinin. No such clumping was seen between the crust and the blood of group A and of group O, suggesting that there is no evidence of anti-A agglutinin. The conclusion is permissible that the blood stain belongs to group A.

The test looks simple, and it is simple when one deals with fresh material. The age of the stain is most important and the quantity is next in importance. If the crust clumps A_1 and B cells but not O cells, the conclusion is permissible that we are dealing with a stain of blood group O. When A_1 cells are clumped but not B cells or O cells, we may conclude that there is an anti-A

with a stain of blood group O. When A₁ cells are clumped but not B cells or O cells, we may conclude that there is an anti-A agglutinin, which indicates the presence of either blood group B, or of blood group O, in which the anti-B may be deteriorated. As a rule, agglutinins are more sensitive to deterioration. The agglutinogens persist longer. We find statements in the literature that agglutinins have been demonstrated after periods as long as four years. However, when we get old stains, we have difficulty in demonstrating the antibodies.

The agglutination of red cells in a blood stain with an antiserum cannot be demonstrated as with fresh blood because with time the morphology and individuality of the cells become obliterated. The presence of agglutinogens may be demonstrated by absorbing a serum that contains the anti-A and the anti-B agglutinin. It is better to use a mixture of two serums, one with anti-A and the other with anti-B. Serum O, which has both of these together should not be used for various reasons which time does not permit to discuss. It is best to use a serum that was diluted so that the titers of anti-A and of anti-B range from 1:8 to 1:16, a serum with a low titer isoagglutinins, because otherwise small amounts of antigen would be difficult to demonstrate. Add to the serum the substance to be examined, the crust, the powder, or the stained tissue. Permit them to act for a period of several hours, preferably overnight in the ice box, and then retest the serum the following morning and determine the effect if any of the stain on the antibodies. Here, again, when there is little material, as is usually the case, two handicaps must be overcome — time and quantity.

Here are the details of the procedure. A serum mixture is prepared of anti-A serum with a titer that was reduced to 1:16, and of anti-B serum diluted to a titer of 1:16. Use a small piece of the stained cloth cut out. The size of the stained material that is cut out will depend on its nature. Different materials soak in different amounts of blood. For example, one square cm. of linen will have approximately 5 mg. of the material in it, after it is dry. The serum is retested after the absorption. For example, cells of group A₁ which were clumped before the absorption in dilution of 1:16, were not agglutinated after the serum was absorbed with the

stain. Cells of group A₂ also were not clumped. The titer for the anti-B is unchanged. The serum is then absorbed with a piece of unstained cloth. The reason is obvious. If the unstained cloth has some of the blood group substances, as it frequently has from perspiration, no valid conclusions can be drawn from the findings with the stained material. In our example the unstained cloth did not remove the antibodies and, with the controls available, we are justified in stating that the stain contains factor A. On the other hand, in another example, where the same result was obtained with stained material, but where the unstained cloth was able to remove the anti-A agglutinins, the result was inconclusive.

This constitutes a complete examination, just as we ask for it in our blood grouping tests, where we test for blood factors in the red cells and for the antibodies in the serum. The results of such an examination can be accepted. Unfortunately, this is not always the case because only too frequently we deal with materials that are too old and contaminated. Blood group substances as well as the antibodies are destroyed in the course of time. Then the results of the examination may be inconclusive.

We can readily demonstrate blood group substances in semen and in saliva. It is much easier to demonstrate blood groups in such materials than in old blood. Blood groups have been demonstrated in cigarette stubs. The reason for the greater ease of demonstrating blood groups in materials other than blood is the fact that the concentration of the blood group substance expressed in units is much higher in saliva and in semen than it is in erythrocytes. Blood group substances are thermostable. Examination of postmortem blood presents no difficulty as long as the blood is fresh. When the blood is putrefied, for example, after a period of from 48 to 72 hours in hot summer weather, it may be difficult or impossible to demonstrate the blood factors.

A few practical examples may demonstrate the value of these examinations. For example, blood was found at the scene of the crime. It was obvious, because of the circumstances, that it could not be the blood of the victim. It seemed probable that it was the blood of one of the individual that had something to do with the crime. Consequently finding the blood group in the

slain and in suspects simplifies the search considerably. Sometimes it can be demonstrated that blood does not come from a certain individual, even without doing blood grouping tests. If the test I just described shows that the isoagglutinins in that drop of blood are capable of clumping the blood of the same individual, that immediately excludes the possibility that it is his blood.

What are the chances of finding that two individuals have different blood groups? It is surprising how high these chances are. When we examine only A, B, and O factors, the chances are 65% that two bloods collected at random will be different. If we add to the examination the N and M factors, then the chances are raised to 90%, and even more, when the Rh factors are added. In addition to determining the A, B, O factors, we may determine quite readily the M factor but not the N and not the Rh, except in fresh blood.

Here is another example: A female corpse was found with several stab wounds. A suspect was picked up who had a sharp tool corresponding in size and shape with the wounds and the tool was covered with what looked like blood. Blood was demonstrated. The suspect denied everything. The group of the blood stain was B. The victim's blood was O. Obviously this tool was not used in the case. The real murderer was found subsequently.

In a case that I had an opportunity to examine not very long ago, stains were found on the clothes of the suspect. He claimed that they came from a nosebleed. His blood group was B and the blood group of the stain was A. The victim's blood group was A. The suspect confessed.

I would like to summarize the material presented here. The first step should be identification of the exhibit. It is especially important because we frequently have to destroy some of the specimens in the course of examination. Also important is identification of the examiner on the exhibit. Next, attempt to demonstrate the presence of blood in the stain by means of gross, microscopic, and chemical tests, including tests employing the technique of crystallization, and spectroscopic tests. The limitations of the procedures have been mentioned. Then comes identification of the species to determine whether we are dealing with human blood. With the help of precipitin tests, this is probably the

easiest part of all these examinations. The identification of blood groups is done by means of demonstration of isoagglutinins and isoagglutinogens. The latter is easier. It has been possible to demonstrate isoagglutinogens in Egyptian and Indian mummies several thousand years old.

I discussed application to a few practical problems. The identification of blood as a tissue and the identification of the species usually present no serious problem. The identification of blood groups would be made easier if examination of the blood were made a part of every autopsy in which there is the possibility of foul play.

Question: Is there any way to determine with any degree of exactness the age of blood specimens found at the scene of the alleged homicide?

Dr. Davidsohn: This can be done but only in an approximate and roundabout way. It would depend on the circumstances. We must consider such things as the condition in which the stain was, if it was exposed to sunlight and to contamination. If the morphology of the blood cells is preserved, then it may be concluded that the stain is not more than a few weeks old. We can remove some of the material and look under the microscope and find the cells well preserved.

Question: If a person disappears, and then you find blood stains that may have been left by this particular person, say a month later, and you are trying to determine when this person disappeared, how do you go about it?

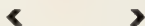
Dr. Davidsohn: If I am able to demonstrate agglutinins, then I would conclude that this is probably just a matter of a month or two, at most. It is true that Philip Levine claims in one of his papers that he was able to demonstrate agglutinins after 4 years, but I wonder if he was dealing with stains that he produced in his laboratory, put away into a drawer, and did not expose to deteriorating influences.

Question: Will blood studies ever replace fingerprinting?

Dr. Davidsohn: The determination of blood groups from stains is in a way more reliable than fingerprinting. Some well known persons have succeeded in changing their fingerprints by surgical operations, but nobody can change his blood group by any procedure. Fingerprints are individual for each person, everybody is sup-

posed to have his own pattern. We have not reached that stage yet with blood groups, but we are rapidly coming there in view of the constantly increasing numbers of new blood group fac-

tors being found. I do not think blood studies will ever replace fingerprints, but in certain circumstances, they may furnish additional valuable evidence.



The Medicolegal Autopsy

EDWIN F. HIRSCH, M.D., CHICAGO

THE summer of 1913 found me on the west side registered for the first quarter of my junior year at Rush Medical College. Preliminary conversations between Doctors H. Gideon Wells, my sponsor, and E. R. Le Count, the respondent—who frequently failed in this assignment—had initiated negotiations for me to approach Le Count for an appointment as his student assistant in the Coroner's Morgue at the Cook County Hospital during the following fall quarter. My purpose in seeking this appointment was to be trained in necropsy techniques and to learn gross pathology, especially as it occurs in bodies where death has resulted from actual or suspected violence. All of this prospective training was linked with my return to the Department of Pathology of the University of Chicago to assist Doctor Wells in his courses of instruction to medical students. Negotiations with Doctor Le Count seemed to have reached an abrupt end when I went to his office and, after a brief statement of my purpose, was dismissed with the comment that he knew of no good reason why he should train any of Doctor Wells' men. During the latter part of the summer quarter, however, on a Saturday evening I received a telephone message from Le Count's student morgue assistant, John Nuzum, instructing me to report in the morgue the next day at 9 a.m.

I arrived that Sunday morning just as Le Count was leaving the morgue. He greeted me with the remark "you were supposed to be here at seven o'clock," and turning to John Nuzum asked if he had not so informed me. John had,

but the "seven o'clock" which he spoke into the telephone system of that date, registered as "nine o'clock" in my untrained ear. The two-hour lapse could not be explained away on a misunderstanding between daylight time and standard time because this alibi then had not come into use. Anxious to serve, I synchronized my timing with the Duke's, as we called him, the Sunday business began and continued on a trial basis during the remainder of the summer quarter. Then through the fall quarter, October 1 to December 31, seven days a week beginning at 6:30 a.m. and uninterrupted save one day when no "coroner's case" was in the morgue, the training of a student was directed by a master technician in forensic pathology.

It marked the beginning of a personal disciplinary association that extended through 22 years, lasting until the summer of 1935 when Le Count passed away and George Rukstinat and I made the necropsy examination of his body. Surely, something of Le Count must have rubbed off from him on me during those years.

The medicolegal necropsy, according to the standards practiced and demonstrated to us by E. R. Le Count, is a complete examination of the head, neck, and trunk. Our first assignment in the training program was to reduce to written form the running dictation given while the prosecutor carried on the examination of the tissues. Le Count was meticulous in the use of descriptive terms. Surfaces made by cutting, disseminated, focal, diffuse, and other expressions all had a specific connotation. We were re-

quired to record the length and weight of the body, characteristics of the head, face, mouth, teeth, neck structures, trunk, extremities, external genitalia, back, skin blemishes, scars, pigmentations, tattoos with sketches. With injuries, he insisted upon the proper use of the terms abrasion, bruise, laceration, contusion, hemorrhage, and other descriptive terms which in his parlance had a definite meaning. Charts and sketches were demanded of injuries, fractures, and other items of significance made on the spot and not later from memory. The anatomic outline charts⁷ still published by the AMA for this purpose, were used. Meticulous accuracy in the details of these drawings and sketches was emphasized and many of them were checked by Le Count himself or by the other student assistants.

The preparation of a record of these necropsies was a must, and all records had to be submitted to Le Count the next morning. The completed record included a full anatomic diagnosis, the charts or sketches, and an adequate brief of the clinical history. Photography then was not perfected as it is today. Had it been, I feel certain that we would have had a generous introduction into amateur photography as applied to forensic pathology. We learned the characteristics of bullet wounds, of entry and exit, their brands, how they indicate the direction of a missile and the proximity, and the kind of firearms. The science of ballistics as published by George R. Callendar (*War Medicine* 3:337-350, 1943) was a later contribution in this field.

Le Count emphasized careful scrutiny of all tissues for minutiae that could be clues to significant conclusions. One morning during the necropsy of the body of a young Italian woman, death was found to be due to an acute purulent leptomeningitis. The common source of this infection in cranial sinuses and otherwise yielded no information. The dura was stripped from the base of the cranium—and I mean the entire dura — and in the bone anteriorly in the left middle cranial fossa was a small focus of osteomyelitis. Turning back the scalp from its reflection over the face he found a small horizontal linear scar that had been missed during the external examination, in the skin over the prominence of the left malar bone — the scar of a stiletto wound. What seemed to be death from a natural cause became a homicide.

The necropsy technique after the external inspection of the body, as taught by Le Count, included a general topographic examination of the abdomen, thorax, and neck and then a complete evisceration with systematic examination of the structures from behind. Time does not permit a detailed review of these necropsy procedures, but they were published in the *J.A.M.A.* (75: 1611 (Dec. 11) 1920. All of the tissues, as the necropsy progressed thusly, came into full view. The various parts of systems, such as the heart and aorta and portions of the respiratory passages, the larynx, trachea and lungs, remain continuous if desired. This method gives a systematic routine of examination which, developed into an ingrained procedure, is a sheet anchor against omissions that later can be full of regrets. As the examinations were made, a descriptive dictation was given to the assistant who on that day was the amanuensis. The two assistants alternated daily in their functions, one day at the table with the doctor, the next taking the dictation and preparing the records. Concentration on the work at hand without diverting conversation and absolute silence about it when circulating later among students and others were absolute requisites. Extramural gossip about the necropsies in the morgue could evoke a devastating reprimand—a veritable cyclone.

The collection and preservation of tissues and fluids for toxicological and chemical examinations were part of the discipline. Glass containers were washed and rewashed several times in running water for security purposes before use. The analytical procedures today as carried out in a chemical laboratory can be amplified further by the methods of spectrographic examination. The identification or exclusion of stains suspected to be human blood and the further establishment of specific characteristics of human blood samples have been discussed by Dr. Israel Davidsohn. Significant data on occasion can be obtained by recourse to other fields in the natural sciences such as metallurgy, horticulture, osteology, comparative anatomy, and others. A well organized department of forensic pathology will know how and when to call upon these ancillary services for help. Histologic examination of tissues also can yield important information. This statement applies to ordinary microscopic preparations but extends into the meticulous study of sections of tissues cut serially to demon-

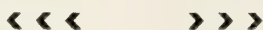
strate the presence, the nature, and the age of injuries.

CONCLUSION

The medicolegal necropsy requires:

1. A complete detailed gross examination of a body with clear descriptive records of the tissue changes observed, supported by charts, sketches, or photographs, and adequately interpreted to the police officer for investigation purposes and for court procedures.
2. An organization of forensic pathology

which includes facilities whereby ancillary aids can be called upon for specific purposes, such as the preparation of tissue sections for histologic examination; the identification, and — where indicated — the further classification of stains suspected to be human blood; the toxicological and chemical analysis of fluids and tissues for lethal substances; and the facilities to use experts in other fields of the natural sciences for opinions of significant materials bearing upon the solution of cases of insidious homicide.



The Pathologist and Your Patient

GEORGE MILLES, M.D., CHICAGO

Two developments of the last quarter of a century, evolving at an increasing tempo, have had a profound impact on the practice of medicine. The first has been the expanding specific and symptomatic medical and surgical therapy; the result has been that early and accurate diagnosis carries a large reward, and diagnostic errors have become correspondingly costly. The second has been the enlarging laboratory contribution to more exact diagnosis and therapy. This has jeopardized somewhat progressive improvement in clinical diagnosis which was achieved slowly and painfully over the years through the keen powers of observation of pioneers in clinical medicine.

The advances have brought the pathologist increasingly into the immediate clinical picture, to advise and direct the laboratory studies and to bring the findings to bear on the immediate clinical problem. Less evident, but even more important to the clinician and the patient, is the pathologist's professional and administrative direction of the laboratory.

How can the clinician bring the pathologist and the laboratory to bear most effectively on his and his patients' problems? The pathologist's interest must be focused on the patient by the clinician. This is best done by personal consultation. Thereafter, the pathologist functions by selection of tests, avoiding overlapping or duplication, while bringing the broadest possible spectrum of useful procedures to bear on the case. The information thus obtained can be made most meaningful if the clinician and the pathologist interpret it jointly. In another quarter, the pathologist brings his composite experience of the surgical and autopsy pathology of all of the practice of his clinical associates on this lump felt on the patient's body or a lesion exposed by the surgeon. This field of surgical pathology is one especially needful of understanding co-operation, for here a futile guessing game can be avoided by interchange of information. These areas of activity require that the pathologist be receptive to many intrusions upon his time, intrusions that basically constitute the most important use of his talents and efforts.

Though these direct activities are more dramatic, the pathologist's intradepartmental re-

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sponsibilities are unique. In the field of pathology, as in fields of clinical medicine, the literature is vast and new procedures and modifications of old procedures are published daily. The pathologist must be capable of evaluating this literature critically. He must not be slow in introducing procedures that contribute to the practice of medicine or hasty in adding those of dubious value. The services offered by clinical pathologists must of necessity be adapted to the needs and interests of the physicians, the hospital, and the community within which he practices. The availability of clinicians especially well trained in special fields such as hematology permits him to concentrate on other fields.

Yet another field for cultivation is that of education not only in the obvious area of the expanding universe of laboratory medicine but in the significance of simple procedures and homely observations as well as methods for increasing the usefulness of standard procedures. For instance, the presence or absence of jaundice is obvious to the clinician, as a general rule. If doubt exists, in the case of a patient with obstructive jaundice, the urine will contain sufficient bile so that shaken, the foam becomes pigmented. What is more important, a B. S. P. should not be carried out on a jaundiced person, since the presence of jaundice is in itself the best test of dye excretion. Moreover, the bromsulphalein test may not be entirely harmless to the acutely pathological liver. Kidney functions can be estimated by the simple evaluation of the speed with which the characteristic fruity or peanut-like odor develops in it following ingestion of asparagus. Another simple office procedure, determination of the specific gravity of the urine, is one of the most valid kidney function tests available. The specific gravity of glomerular filtrate is 1.010. The specific gravity of the urine, which finally reaches the bladder, will vary with the available body water. If a patient is capable of passing a random urine with a specific gravity of 1.025 or better, there is little need for doing a Mosenthal, or indeed hardly any other kidney function test, except under unusual circumstances.

The BMR is an unjustly maligned test. For some time, in the laboratory of Augustana Hospital, we have recorded the patient's blood pressure as well as his pulse rate in the course of determining the BMR. Using the formula—the

blood pressure plus the pulse pressure minus 111 = BMR, we check the accuracy of the BMR as recorded. If the estimated and recorded BMR are significantly different, the BMR is repeated, preferably under sedation.

We have found that a simple determination of the presence or absence of occult blood in the stool, using the old and often criticized benzidine procedure, is valuable as a screening test for tumors of the gastrointestinal tract. In our experience, the presence of 4 plus occult blood, and even 3 plus, carries an incidence of 17 per cent of malignant tumors somewhere in the gastrointestinal tract, as compared to 25 per cent in the presence of gross blood.

We have long been aware of the futility of blood cultures if treatment is withheld for several days while three or four samples of blood are obtained. We now obtain several samples at intervals of two or three hours to avoid delaying at least empirical therapy, and have expedited the bacteriological study and antibiotic sensitivity studies to hasten the institution of specific therapy.

A final point should be emphasized. Certain symptoms and signs make a carefully planned diagnostic campaign mandatory if treatment is to be efficient, effective, and logical. For the purposes of this discussion the term diagnosis will imply an established anatomic location, pathologic anatomy, etiology, and pathologic physiology. In order to achieve this ideal, the etiology must not be hidden behind a screen of therapy or the effects of a diagnostic procedure nor should a syndrome or a symptom be permitted to masquerade as a diagnosis.

For example, the etiology of diarrhea should be searched for and established before it has been suppressed by therapy or, even worse, by the bowel preparation and barium involved in X-ray studies. The surgeon, draining a lung abscess, ought to obtain a biopsy of its wall as well as material for bacteriological study, lest his initial happy prognosis be rudely shattered by an expanding and metastasizing bronchogenic carcinoma, or the chronic draining sinuses of a mycotic infection.

The common points for meeting are limited only by the vision of all parties, and the greater the number of meetings the more the patient will benefit. The pathologist, as the doctor's doctor, is in turn the patient's consultant.

Diagnosis of Carcinoma of the Pancreas, Biliary Tract, and Duodenum By Combined Cytologic and Secretory Methods

HOWARD RASKIN, M.D., ASSISTANT PROFESSOR OF MEDICINE, UNIVERSITY OF CHICAGO

Dr. Robert J. Adolph: The speaker for today's seminar is a member of an active group of clinical investigators at the University of Chicago School of Medicine who are interested in improving diagnostic acumen in diseases of the gastrointestinal tract. Although the use of cytologic and secretory methods in the diagnosis of carcinoma of the pancreas, biliary tract, or duodenum is not new, these workers have done much to perfect its application. Our speaker is Dr. Howard Raskin, Assistant Professor of Medicine at the University of Chicago.

Dr. Howard Raskin: Most carcinomas of the gastrointestinal tract are relatively easy to diagnose; however, carcinomas of the pancreas (including the duodenum and biliary tract) produce difficult diagnostic problems and comprise at least 10 per cent of all gastrointestinal malignancies. We believe this type of carcinoma is much more common than has been stated. Since April, 1955 we have seen 55 cases of carcinoma of the pancreas, biliary tract, and duodenum at the Billings Hospital, whereas during the same interval we have seen only 130 carcinomas of the stomach.

We have been able to increase significantly our diagnostic batting average in carcinoma of the pancreas by utilizing the secretin test as a measure of pancreatic function in combination with cytologic examination of aspirated secretions obtained after intubation of the duodenum. The procedure is relatively simple and can be performed with little or no premedication. In 356 attempts, we have failed to position the tube in the duodenum in only three. The duodenum in these cases was scarred and deformed.

With the patient sitting upright, a double lumen Diamond tube is passed through the

mouth to the 45 centimeter mark on the tube. The esophageal-cardiac junction is reached at 40 cm. The patient then lies on his left side, and the tube is passed an additional 15 cm. along the greater curvature of the stomach. He again sits upright and leans forward to free the tip of the tube from the posterior stomach wall and allow it to enter the antrum. Several deep breaths are taken during this maneuver. The patient is then positioned on his right side with head down, enabling peristalsis and gravity to move the tube into the first portion of the duodenum. Finally, he rolls onto his back so that the tube may curve posteriorly into the second and third portions of the duodenum. Only now is the position of the tube checked fluoroscopically.

The entire procedure or positioning the tube averages only 15 minutes. When the tube is in place, fluid contents from stomach and duodenum are collected separately for 10 minutes; this constitutes the control period during which time we check the pH of the duodenal aspirate. The fluid should be neutral or slightly alkaline.

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The purpose of the control period is to make certain there is no reflux of gastric juice into the duodenum. Should this occur, it usually can be remedied by sliding the tube up or down a few centimeters.

We have found secretin (Eli Lilly) a safe and stable preparation for our test. An intradermal skin test for secretin sensitivity is always performed even though we have encountered only three positive tests to date. Secretin, in a dose of 0.1 unit per kilogram of body weight, is then injected intravenously over a two minute period. There is an almost immediate outflow of colorless watery fluid from the duodenal lumen. Three 10 minute samples of pancreatic secretions are collected and measurements are made of volume and bicarbonate concentration. The normal value for bicarbonate is at least 90 meq. per liter and for volume is 1.1 cc. or more per kilogram of body weight per 30 minutes. The volume and bicarbonate determinations are the best indices of pancreatic function.

In carcinoma of the pancreas either the volume, the bicarbonate, or both may be depressed, although commonly the volume alone is reduced. We might suppose that the tumor pressing on the pancreatic ducts produces sufficient atrophy to reduce overall volume without reducing bicarbonate concentration of surviving parenchyma. Decreased values in volume or bicarbonate can be seen in other diseases such as chronic pancreatitis, cirrhosis, and diabetes mellitus. In chronic pancreatitis, however, the secretory functions are mainly affected accounting for depressed bicarbonate values whereas the volume may be normal. Repeat intubations of patients with chronic pancreatitis reveal volumes and bicarbonates after secretin injection that are closely reproducible.

Cells are obtained from the same aspirate for cytological examination. In carcinoma of the pancreas, duodenum, or biliary tract morphologically abnormal, bizarre cells with heavy nuclear clumping frequently are found. We believe that secretin should always be administered prior to the collection of cells for cytologic examination. In one patient we found a single clump of abnormal cells which we felt may have been expressed by the secretin. The tumor was in the body of the pancreas and had no visible communication with the duodenum other than the pancreatic duct.

If there is some flow of bile, albeit small, carcinoma of the biliary tract often can be diagnosed by cytologic examination. A complete absence of bile during the 30 minute test period almost certainly indicates the presence of carcinoma since there is always some bile flow in benign conditions. Amyl nitrite and oleic acid also have been used to stimulate bile flow in the jaundiced patient.

We have had three patients with carcinoma of the tail of the pancreas and have made a positive cytologic diagnosis in one case. We have similarly diagnosed carcinoma of the gall bladder in another patient in whom other tests were negative. Two primary and two metastatic carcinomas of the duodenum have been diagnosed. In one case metastases arose from the left breast, three years after radical mastectomy. The cells obtained from the duodenal drainage appeared almost identical to those of the primary tumor. The other metastasis arose in the cecum. In all examinations the duodenum is lavaged with saline at the conclusion of the secretin test and the fluid submitted for cytologic examination. It should be noted that in some cases we have detected *Giardia lamblia* or calcium bilirubinate and cholesterol crystals, giving a diagnosis in cases that were suspected carcinomas.

In four patients, cytologic examination of the duodenal drainage showed malignant cells but the surgeons were unable to find the carcinomas at operation. Postmortem study showed carcinoma in all.

In a series of 49 patients with proved carcinoma of the pancreas, biliary tract, or duodenum the secretin test alone was positive in 60 per cent. The rate would be even higher if we were to consider only the carcinomas of the body and head of the pancreas. (See Table 1).

TABLE 1
RESULTS OF THE SECRETIN STUDY

	49 Proved Carcinomas		
	Number	Normal	Abnormal
Pancreas	40	14	26
Bile Duct	6	4	2
Gall Bladder	1	1	0
Duodenum (Primary)	2	1	1
	49	20 (40%)	29 (60%)

Cytologic studies have been positive in 60 per cent of 55 cases of proved carcinoma. (See Table 2).

TABLE 2
RESULTS OF CYTOLOGIC STUDY

	55 Proved Carcinomas Number	Normal	Abnormal
Pancreas	43	18	25
Bile Duct	7	4	3
Gall Bladder	1	0	1
Duodenum (Primary)	2	0	2
Duodenum (Metastatic)	2	0	2
	55	22 (40%)	33 (60%)

In a series of 44 cases in which combined cytologic and secretory methods were applied, a positive result was found in 26 cases by cytology and in 25 by secretory studies. Both tests were positive in 15 cases whereas only one test was positive in 23 cases. Either test by itself, therefore, gives an accuracy of about 60 per cent which can be increased to 85 per cent when both tests are applied. In other words, in only 15 per cent of cases of proved carcinoma do we get false negative results when both tests are used.

Dr. Raymond Teplitz, Research Fellow in Medicine: We have been performing duodenal intubations at this institution under direct fluoroscopic vision, as recommended by Dreiling. Why do you object to this technique?

Dr. Raskin: It exposes the patient to unnecessary radiation.

Dr. Walter Scott Wood, Instructor in Preventive Medicine: How much extra irradiation?

Dr. Teplitz: Less radiation than is involved in an upper G.I. series or cardiac fluoroscopy.

Dr. Raskin: Yes, but it is important to remember that most of these patients have already had multiple gastrointestinal X-rays and fluoroscopies by the time you see them.

Dr. Teplitz: Dr. Dreiling in New York claims

that secretin skin tests rarely are positive. Would you comment on this observation?

Dr. Raskin: We have seen one shocklike state following secretin. It is probably prudent to skin test every patient before the secretin test.

Dr. Ford K. Hick, Professor of Medicine: Do you invariably recover normal cells from a normal duodenum?

Dr. Raskin: Yes.

Dr. Hick: What is the incidence of false positive cytologic examinations?

Dr. Raskin: Thank you for asking that very important question. We have had two false positives to date. Both of these patients, however, had pathology other than carcinoma: one had a duodenal ulcer, and the other patient had cholesterosis of the gall bladder.

Dr. Wood: The incidence of carcinoma of the pancreas which you quote seems unusually high.

Dr. Raskin: The State of Connecticut reports a sharp rise in the incidence of carcinoma of the pancreas during the last 10 years. This increase may be largely a result of better diagnosis and reporting. At the same time the incidence of carcinoma of the stomach has declined.

Dr. Wood: Have you compared mecholyl or other agents with secretin for stimulatory effects?

Dr. Raskin: We have found secretin to be the most effective agent tested, and it is more physiologic than other agents.

The critical question is whether the use of combined cytologic and secretory methods has saved human lives. It is still too early to tell. Five patients with carcinomas detected by these methods have had Whipple procedures and three are still living. The five year survival of patients with carcinoma of the head of the pancreas is less than one per cent.

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The New Coroner's Law in Illinois

SAMUEL A. LEVINSON, M.D., CHICAGO

THE word coroner is derived from the term, crown officer. This *corona* was an officer of the crown of England who kept watch over the profits of the crown and inquired concerning treasure troves, wrecks, whales, and sturgeon. Among his other duties in this early period in Great Britain was to conduct inquests in sudden deaths, to see that the crown was not deprived of the emoluments arising from the forfeiture of the chattels of felons and outlaws, conduct inquests in cases of rape, and to investigate deaths due to wounds and other forms of trauma.

English common law was brought here by the early settlers and it was adopted by the newer states and territories as they were settled. This included the office of the coroner.

When Illinois became a state in 1818 the organic law provided "There shall be elected in each and every county in the state one sheriff and one coroner. The said sheriffs and coroners respectively shall continue in office two years." When our new state constitution was drafted in 1840, the only public official mentioned in the county article was the sheriff. For 22 years the office of coroner was without constitutional status, but in 1870 it was re-established into the law in the revised constitution. Election of a county coroner for a two year term was provided for. A second amendment to this constitution was adopted in 1880, changing the term of the office of the coroner to four years, and this provision remains in the constitution today.

According to the constitution of Illinois (1870) the coroner has three types of duties to perform: (1) He is a peace officer; (2) he is an investigator of untimely deaths of various kinds; and (3) he is responsible for a limited number of duties not directly related to his principal functions.

As a peace officer the coroner is conservator of the peace in his county and as such, has the same power as the sheriff. In fact, he can act in the capacity of a sheriff when the latter is an interested party in the case or when the office of sheriff is vacant.

The primary function of the coroner is in connection with medicolegal investigations. Whenever a dead person is found within the territorial limits of a county and is "supposed to have come to his or her death by violence, casualty, or undue means," the coroner shall take charge of the body and immediately summon a jury of "six good lawful men" of the neighborhood where the body was found to view it and to "inquire into the cause and manner of the death." If the coroner is unable to ascertain the cause of death by external examination, he may employ a physician to examine the body and perform an autopsy to determine the cause of death.

If the autopsy findings reveal that death is due to natural causes, the coroner shall issue a certificate without conducting an inquest into the manner of death. Hence, all deaths "occurring without medical attendance" must be investigated by the coroner. If, on the other hand, external examination or autopsy findings suggest that death appears to have resulted from "violence, casualty, or undue means" he shall proceed with an inquest to determine how and by what means death has occurred. The term "violence, casualty, or undue means" may be adequate so far as an interpretation of these terms go; however, the constitution does not spell out in detail just what is meant by "violence, casualty, or undue means." Thus, the constitution gives the coroner discretionary power, and he may or may not conduct an inquest depending upon his interpretation of "violence, casualty, or undue means."

Other incidental responsibilities of the coroner may include permission for removal of dead bodies from his jurisdiction to another jurisdic-

Louis A. Weiss Memorial Hospital, Chicago, Illinois. Presented before the Joint Conference of Medical Staff Members and Trustees, 28th Annual Meeting, Tri-State Hospital Assembly, April 30, 1958, Chicago.

tion — i.e. to another county or to another state.

The General Assembly has added the following sections to the Coroner's Act in 1874: (1) In 1881 three sections concerning coroner's deputies; (2) in 1907 a section on embalming bodies subject to a coroner's investigation; (3) in 1909 a section on removal of a body under investigation from a county; (4) in 1931 a section on inquests; (5) in 1933 two sections on witnesses; and (6) in 1941 a section on coroners in military service.

According to Dr. E. F. Hirsch, none of these appended sections gives specific instructions about the procedures for necropsy of bodies where death has resulted or is suspected to have resulted from violence or unnatural causes. Thus nothing has been done by direct revisions of the Act of 1874 to improve the quality of the medical examinations when Illinois coroners are confronted with the problem of determining the cause and means of death in a body referred for investigation.

The conduct of the office of coroner as it appeared in the 1870 constitution may have been adequate for the times. However, with the progress in the social and technological phases, the many disciplines acquired by the citizens, the advances made in the fields of biology and sciences, the contributions in the field of physical anthropology, police sciences, and crime investigation, it is mandatory that the office of coroner confine itself essentially to the scientific phases of modern forensic sciences. These include forensic pathology, toxicology, immunology, the various disciplines in the police sciences, histology and microbiology, and the utilization of the many ancillary groups that play such an important role in crime detection and crime investigation. The objective of all this is to secure truth and justice for the citizens in the community, the state, and the nation.

The principal pillar in modern forensic sciences is forensic pathology. It provides the courts of law and other areas with information from studies of the gross and microscopic examination of tissues with medicolegal implications; and provides the facts by which criminal justice can be established and by which claims for compensation can be judged. It is obvious that only a person who is trained in these sciences, particularly in the field of forensic pathology, and who has the knowledge and the technique of the

specific basic sciences can interpret and make available the information to the courts and the jury who may then decide the guilt or innocence of the accused.

Obviously from what has happened in the recent years in Illinois, the citizens have not received the protection and information necessary to exercise justice and the truth so far as the coroner's examination is concerned. The result has been many unsolved cases; some have been signed out without autopsy and with the exact cause of death unknown. At times misinformation has placed hurdles in the pathway of our law enforcing agencies.

In order to present the evidence of violence or unexplained death, the coroner must rely upon an autopsy. As a layman he is not qualified to perform this function and must depend upon the information he receives from a physician who is called upon to perform the autopsy. A physician who is registered to practice medicine in Illinois does not necessarily have the skills, techniques, and experience in gross and histologic examination of tissues to perform a medicolegal necropsy. Just as there are experts in the field of toxicology, immunology, ballistics, and other law enforcing agencies who are especially trained in this field, so there must be a similar specialization in the field of forensic pathology. In Illinois there is no co-ordination of these areas for the coroner to use all the specialties in the law enforcing agencies when homicide or murder takes place. It is true that he may ask these agencies to participate in the investigation, but they function as independent investigators. The result is that studies in homicide or murder cases by various agencies may sometimes lead to divergent opinions, and when this is placed before the coroner's jury of "six good and lawful men" to determine a verdict as to the manner and means of death, there sometimes results a farcical decision because none of the participants has legal or medical qualifications.

The aforementioned comment about Illinois, particularly in one of the counties of the state is not true of this state alone. It exists elsewhere in the United States. Before 1877, every county in the United States had an elected coroner, and the first separation of the scientific from the legal investigation, occurred in Boston, Mass. in 1877, when the office of medical examiner was established. The advantages of the medical ex-

aminer system are: it is a nonpolitical office; the physician in charge is an expert in medicolegal pathology who can conduct a scientific examination into the cause of death; its work is purely medical; its impartial findings are accepted by court and jury in criminal cases, by insurance companies, and compensation boards in accidental cases; its excellent work is done at a minimum cost to the public.

Since the establishment of the first medical examiner's office in Boston, similar medical examiner systems with some modifications have been established in New York, in some counties in New Jersey, Virginia, Maryland, and various cities and counties in the United States. The fact remains that, apart from these isolated exceptions, every county in the United States has an elected coroner who participates in the conduct of scientific and legal investigations. Contrast the medical examiner's system with the existing coroner's office. The latter is a political official, usually without professional qualifications, who has the medical duty of determining the cause of death and the legal duty of holding an inquest, whose medical findings are questioned by the courts and insurance agencies, and whose inquest investigations must be duplicated by the prosecutor. His work is done at a high cost to the public.

There are a few areas in the United States in which the name of coroner is retained in the county but the scientific investigation is carried out at a high level, comparable to that of the medical examiner's system. In these isolated areas the coroner is a pathologist who has developed a skilled staff in forensic pathology, toxicology, and other areas important in his scientific investigations, and the legal aspects are delegated to the district attorney's or state attorney's office. Although he is elected to his office every four years, it makes little difference whether he is called medical examiner or coroner, provided the individual in charge of the office is a pathologist and a dedicated person in the field of scientific investigation.

I should like to clarify at this point two terms which are used interchangeably but have different meanings: medical jurisprudence and legal medicine. Medical jurisprudence is the consideration of the laws of the land as they bear upon medical subjects. It is primarily law rather than medicine. Matters pertaining to the contractual

relations of physician and patient—i.e. the legal rights, duties, and liabilities of the physician with regard to his patient and also to the general public—are properly classified as problems of medical jurisprudence. Legal medicine, or forensic medicine, is that portion of medical testimony that may be of assistance in serving the needs of law and justice. It often is thought of as concerning itself with the medical aspects of criminal offenses, but in addition, is also called upon to render assistance in the adjudication of cases involving life and accident insurance, industrial compensation, soldiers' rehabilitation, and other civil court actions. Thus, in the forensic sciences the coroner must be concerned only in legal medicine because it is this information that is so essential for the law, the truth, and justice.

For many years the Institute of Medicine of Chicago has urged legislation to modify or streamline the operation of the coroner's office in Illinois and to improve the quality of techniques in forensic pathology and ancillary sciences. This organization's resolution voicing these views was adopted by the Council of the Chicago Medical Society and the house of delegates of the Illinois Medical Society. In 1952 a committee was appointed by the Illinois State Medical Society to examine the possibilities of revising the existing Coroners' Act and to offer recommendations for improving the scientific performances of this office. With the aid of legal advisors of the Illinois State Medical Society a bill was written and presented to various agencies and organizations in Illinois for suggestions and recommendations as well as their support. Professional and lay organizations including the Chicago and Illinois Bar Associations, the Illinois Coroners Association, the Association of States Attorneys, and church and civic groups, were consulted. Toward the end of the session of the legislature in 1953, a bill was introduced but not voted upon.

Any revision of the Coroners' Act of 1874 in Illinois must cover all of the 102 counties in Illinois. Because of the great range of coroner work loads in the separate counties, legislation with a division of counties on the basis of population seemed advisable. Thus counties of more than 500,000 population were designated as Class I and those with less than 500,000 population as Class II. Two bills, complementary to

each other, were drafted and introduced to the General Assembly on March 9, 1955 by Senator Albert Scott of Canton, and others. They were designated as Senate Bill 247 and Senate Bill 248.

Senate Bill 247 defined more clearly the cases belonging to the jurisdiction of the coroner; specified coroner's juries only for cases of suicide, homicide, and accidental death, thus saving the cost of unnecessary coroner's juries for a county; provided that medical examinations be made by a physician duly licensed to practice medicine in all of its branches and, wherever possible, by one having special training in pathology; and stipulated that the appointment of these examiners in Class I counties be by the coroner, while those in Class II be appointed by the Director of the Illinois Department of Public Health in consultation with the elected coroner of each county. In this plan, coroners and the Director of Public Health thus co-operate in improving the quality of the medical examinations of coroner cases throughout the state, and in giving groups of counties the benefits of improved medical examiner services, where each alone would have difficulty in obtaining a qualified examiner. Senate Bill 247 included further directives for the medical examination of a death under mysterious circumstances, clearance by the coroner when the body is to be cremated, and several other clarifying instructions.

Senate Bill 248 provided necropsy service to counties of Class II in consultation with the elected coroners through the Department of Public Health. It also specified the appointment of an advisory board by the Governor to consider ways and means for improving the quality of these services throughout the state. This advisory board of nine members was constituted to include three physicians, three elected coroners, and three lay persons acquainted with the problems of forensic medicine.

Senate Bills 247 and 248 passed the Senate by a vote of 29 to 5, and on the final day of the last General Assembly, June 30, 1955 were voted through the House of Representatives 94 to 7 and 94 to 6 respectively. Governor William G. Stratton on July 7th, 1955 signed Senate Bill 248 but later vetoed Senate Bill 247.

These bills provide a much needed revision of the existing Coroners' Act and in effect mark the beginning of a constructive program in which

forensic pathology can develop as a forceful tool to the coroners of Illinois in the discharge of their duties. Senate Bill 63 was introduced by Senator Scott, and it was passed by the Illinois Legislature in 1957 and made into law by the signature of the Governor of the State of Illinois. Since the Coroners' Act in our constitution cannot be deleted except by a constitutional amendment or by referendum, this bill is the beginning of one that will call into action the advancements made in the field of science, criminal investigation, and law. Prior to the passage of this bill, which amends the functions of the office of coroner, the Illinois Coroners' Act gave no recognition to any of the modern scientific aids in determining the causes and means of death such as ballistic analysis, chemical analysis by spectroscopy, X-rays, bacteriology, etc. The existing Coroners' Act in the constitution of the State of Illinois takes no cognizance of the universal extension of medical care and the fact that over half of those who die are hospitalized. All these modern conditions pose problems that cannot be solved by just summoning "six good men and true" to hold an investigation.

CONCLUSIONS

The office of coroner in Illinois, as well as in a great many counties in the United States, is an ancient office. Age alone does not necessarily make the office a good or a bad one.

In our age of technocracy, with the progress made in the various fields of science, law, and human relationships, the office of coroner has not made comparable strides to meet advancements in other fields.

The office of coroner is of tremendous importance to the community but few of our citizens realize the value of this office in relation to their safety and protection.

In Illinois, the annual death rate of approximately 93,000 includes 15-16,000 coroners' cases: natural or traumatic deaths the cause of which is determined by external examinations and autopsies. In Cook County, out of 47,000 deaths per year, approximately 8,000 are referred to the coroner's office for investigation. Of this number, approximately 60 per cent died as a result of direct injury or from complications from trauma or industrial hazards or various noxious agents. Thus, the family encounters a law investigating agency that wants to deter-

mine whether death was the direct result of trauma or due to secondary causes. Unless a thorough and scientific study is made, and all the disciplines in the field of science and law are called upon to resolve the problem many widows or other members of the family, as well as agencies such as insurance companies and other protective organizations, may not receive the truth and justice they deserve.

A tremendous responsibility — namely, the life or death of the accused — rests solely and squarely on the shoulders of the medico-legal expert, the results of his findings, and the opinion he renders. The medico-legal pathologist is one who is trained not only in general pathology but in forensic pathology. He must have continued

experience, must analyze his findings carefully, and must study the literature constantly.

Too much stress cannot be placed on the importance of careful and painstaking examination and analysis must be carried out with an open mind, unswayed by emotional outbursts of press or public, or clouded by preformed conceptions gathered from similar cases. The medicolegal expert must be well trained in all fields of general pathology so that he can recognize a non-medical legal death. Only thus can the office of coroner and a scientific staff serve the community and the law agencies with truth and justice.

I am grateful to Mr. W. O. Winter and Dr. E. F. Hirsch for material and information contained in the text.

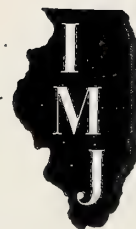


The family physician

It is amusing to read and hear of the passing of the family physician. There never was a time in our history in which he was so much in evidence, in which he was so prosperous, in which his prospects were so good or his power in the community so potent. The public has even begun to get sentimental over him! He still does the work; the consultants and the specialists do the talking and the writing, and take the fees! By the work, I mean that great mass of routine

practice which brings the doctor into every household in the land and makes him, not alone the adviser, but the valued friend. He is the standard by which we are measured. What he is, we are; and the estimate of the profession in the eyes of the public is their estimate of him. A well trained, sensible doctor is one of the most valuable assets of a community, worth today as in Homer's time, many another man. To make him efficient is our highest ambition as teachers, to save him from evil should be our constant care as a guild.—*Sir William Osler, 1902.*

EDITORIALS



Hay fever

In its broad sense, the term "hay fever" is applied to all types of seasonal rhinitis whether due to ragweed, grass or tree pollen, mold spores, or insect dust. Management of hay fever may be divided into simple medicinal treatment, anti-inflammatory hormones, procedures aimed at removing the noxious agent, and specific immunization.

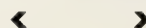
Among the simple symptomatic remedies the antihistamines are the most effective. While they vary in potency and side effects, there is no best product for all cases. It's a matter of tailoring the drug to the particular individual. These compounds frequently are ineffective in severe cases and almost useless in asthma, which they will not relieve or prevent.

The steroid hormones are indicated only in the most severe uncontrollable hay fever, particularly when there is an accompanying asthma that does not respond to other measures. Although tolerance to these agents (cortisone, hydrocortisone, prednisone, prednisolone, methylprednisolone and triamcinolone) varies, there is little difference in their therapeutic effectiveness in properly adjusted dosages. In administering such drugs, the side effects must be considered and watched for.

Decreasing exposure to air-borne allergens can be helpful. This may be accomplished by air conditioning or room filtration. Electrostatic

filters are the most efficient and, during excessive temporary exposure, a face mask helps. Avoiding the country and staying indoors also are helpful. Staying at a low pollen locale will diminish or remove symptoms in the short term season (ragweed). It is more difficult and less practicable to find a vacation area for other allergies (grass, trees, molds, insects).

For the majority of sufferers, desensitization still is the most promising therapy. It is effective in preventing asthma and gives comfort to the majority of sufferers. Desensitization can result in immunity lasting for one to several years and, in some instances, indefinitely. It cannot be carried out by a prearranged dosage schedule; Individualization of dosage is responsible for optimum results and minimal reactions.



Too busy to keep up

At least two views of the family physician appeared in print during June.

The Health Information Foundation reported the results of a survey made on 2,400 persons and almost 500 physicians named by these persons as their family doctors. The majority were relatively young; over one-third were in their forties.

According to the report, the average time spent at the office was six hours a day and two hours on house calls. Only one physician in 14

made no house calls. Four out of five were available for night and Sunday emergency calls. Four out of five of the persons interviewed said they have a family physician to whom they turn regularly when ill. Most patients had a good opinion of the medico's ability, "reflecting a confidence that is certainly related to success in patient care."

The Foundation President, George Bugbee, made the comment that the personal character of the relationship between patient and family doctor has not given way to impersonal arrangements for physician services. "Good medical care will always depend on how early during illness a physician is consulted and how readily his advice is accepted by those who ask for it."

William R. Wood, a staff reporter, discussed a different view in the June 30 issue of *The Wall Street Journal*. He interviewed many physicians concerning their ability to keep up with medical progress and replies were somewhat discouraging and not always complimentary. Many physicians are opinionated and do not realize that their remarks will be used to judge the entire medical profession including themselves. The following examples appeared in Wood's article:

"A Minneapolis tuberculosis specialist tells of a rural Minnesota doctor who sent a patient to Arizona to cure what he thought was TB. 'This patient slipped away about a year later and came into out clinic for a checkup,' reports the specialist. 'It turned out that what his doctor had diagnosed as TB was a minor condition which could have been cleared up in a couple of weeks with modern treatment.'"

"A Richmond, Va., gynecologist says he recently had a friend come to him whose wife was about to be operated on for what the family doctor had diagnosed as a severe female disorder. 'This was to be a serious operation which would have altered the woman's whole life,' says the Virginian. 'What this G.P. apparently didn't know was that there had been a drug in existence several years which made surgery absolutely unnecessary.'"

A young San Francisco medico was reported as saying, "Sure, they'll tell you they're too busy, but lot of them are not too busy to make \$40,000 a year. They're just trying to see too many patients."

Undoubtedly it is becoming increasingly difficult to keep up with the 400 new drugs, some-

thing like 20,000 detail men, and the thousands of direct mail pieces that physicians receive every year. There are 6,000 medical journals, hundreds of bulletins, reports, and meetings of societies and associations where new techniques are described. Attempts have been made by pharmaceutical houses and the editors of throw-away journals to print digest articles for our consumption. It is tough, but to keep up we have no recourse except to limit our practice or take several weeks off each year to be posted on what is happening. Otherwise it means giving up home life and recreation. Let's not get to the stage of the nattily attired heart expert who told Mr. Wood, "The best G.P. nowadays is the one who knows what kind of specialist to send his patients to." Let's stop playing God and be a little more humble.

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Illinois resolutions presented to AMA House

Illinois delegates presented a number of resolutions at the recent annual meeting of the AMA House of Delegates.

One pointed out that the AMA has no guide for its members to use in judging a third party contract, although the principles are stated in various places in "The Principles of Medical Ethics."

Consequently, it was proposed that a guide be adopted to provide:

(1) *That it is unethical for a physician* (a) to allow his services to be exploited by a third party for financial profit; (b) to solicit patients directly or indirectly; (c) to engage in the corporate practice of medicine except in the performance of insurance, or employment examinations, or where the practice of medicine generally is affected by operation of law.

(2) *That it is unethical for physicians to associate with a plan* (a) which does not promptly fulfill all of the obligations of its contracts; (b) the fees of which are substantially lower than those charged for the service in the community and thus lead to a deterioration in the quality of medical care; (c) which denies a free choice of physicians; (d) which denies the patient free choice of hospitals provided the hospital has been declared competent by the state, the county medical society, or the Joint Committee on the Accreditation of Hospitals.

(3) *It is inadvisable for a physician to asso-*

ciate himself with a plan (a) which will not allow disputes to be adjusted by a committee of the local or state medical society; (b) which he can reasonably expect to become unethical in the future.

This resolution went to the Reference Committee on Insurance and Medical Service, which reported back that it believes "it would be unwise to act hastily on any statement of medical ethics and, therefore, recommends that this resolution be referred to the Judicial Council." The House so voted.

Another resolution expressed concern over a growing tendency on the part of hospitals to expand existing facilities to include more and more outpatient service. This expansion has resulted in the establishment of office space for staff physicians in hospitals and in some instances the setting up of separate office buildings to be used for outpatients.

These arrangements, it was pointed out, encourage the practice of medicine by hospitals through control of services rendered, such as (compulsory) use of hospital departments—EKG's, laboratory, pathology, X-ray, etc.—to the detriment of free choice.

The resolution proposed that a study be made to determine whether or not this practice is a major move toward the practice of medicine by hospitals. Upon the recommendation of the same reference committee, the resolution was approved and referred to the Board of Trustees for prompt implementation.

Three resolutions went to the Reference Committee on Medical Education and Hospitals. One dealt with the practice in some hospitals of levying compulsory assessments against medical staff members for building funds, and of requiring audits of staff members' financial records as a requisite for continued staff appointment.

The resolution called upon the AMA to reiterate its position condemning such practices and to call these matters to the attention of the medical profession. The reference committee so recommended, and the House concurred.

Another resolution pointed out that physicians and surgeons fully licensed in Illinois by examination are being denied licensure in some other states by reciprocity because the school of their graduation was not approved by the AMA at the time of their graduation, although since approved.

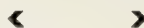
This was regarded as unfair, and the AMA was urged to stimulate suitable legislation on a national level so that such physicians and surgeons may qualify for licensure in all states which recognize reciprocity.

The House adopted a substitute resolution proposed by the reference committee. This directed the AMA to take appropriate steps toward a study of the problem and to consult with the Federation of State Medical Boards in an attempt to find a satisfactory solution.

Another resolution requested that county medical societies be consulted whenever possible in matters of accreditation of hospitals in their area. The reference committee, in recommending disapproval, stressed that there can be only one standard of medical care regardless of the size of a hospital.

The committee went on to say: "The successful experience in Ohio where a State Medical Society Committee on Accreditation was established for the purpose of determination and solution of problems as a result of meetings with representatives of the Joint Commission on Accreditation of Hospitals might well set a pattern for similar programs in other areas where misunderstandings exist due to certain regulations of the Joint Commission."

The House agreed with the disapproval recommendation.



Two CMS members elected to important AMA posts

Two past presidents of the Chicago Medical Society were elected to important positions in the American Medical Association at the annual meeting of the AMA House of Delegates in San Francisco.

Dr. Warren W. Furey, clinical professor of radiology at the Stritch School of Medicine, Loyola University, was elected to the Board of Trustees, succeeding Dr. Edwin S. Hamilton of Kankakee. Dr. Walter C. Bornemeier, attending surgeon at the Illinois Masonic and Resurrection Hospitals, was elected a member of the Council on Constitution and Bylaws to succeed Dr. Furey.

The House gave standing ovations to three Illinois physicians for long service to the AMA—Drs. Hamilton, George F. Lull, and Josiah J. Moore.

Dr. Hamilton completed 10 years on the Board of Trustees, the maximum permitted. He served as secretary of the Board for nine years and chairman during the last year.

The posts of secretary and treasurer, by constitutional changes, were discontinued as individual positions and combined into one, to be filled by the Board of Trustees from its own membership. For the last 12 years, Dr. George F. Lull of Chicago had served as secretary and general manager. Dr. Lull was selected to fill a newly created post, assistant to the president.

Dr. Josiah J. Moore of Chicago completed 15 years of service as treasurer. The combined position of secretary-treasurer went to Dr. Raymond M. McKeown of Coos Bay, Ore.

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New Medicare policy on furnishing drugs

As of July 1, 1958 payment for oral medication dispensed or prescribed by physicians providing care authorized under the Medicare Program to eligible dependents, became the responsibility of the patient and will not be compensable to physicians under this program. Physicians furnishing care to eligible dependents may include the cost to them of drugs they administer parenterally. To obtain reimbursement for such a drug a physician must identify the nomenclature and quantity of the drug and set forth the cost to him on the proper claim form. The policy authorizing the furnishing of drugs to hospital inpatients remains unchanged. Medicare patients may continue to obtain medication from pharmacies of uniformed services medical facilities upon prescription or from civilian pharmacies at their own expense.

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Illinois physicians make record contribution to medical education

Illinois physicians, through two officials of the Illinois State Medical Society, presented a check for \$177,500 to the American Medical Education Foundation for distribution to medical schools. This is the largest check ever to be received by the foundation from any state organization.

Dr. Raleigh C. Oldfield of Oak Park, president of the society, and Dr. Harold M. Camp of Monmouth, secretary, made the presentation before the House of Delegates, American Medical Asso-



Dr. George F. Lull, (center), president of the American Medical Education Foundation, receives check for \$177,500 from Dr. Raleigh C. Oldfield, president of the Illinois State Medical Society, as Dr. Harold M. Camp, secretary, looks on.

ciation, in San Francisco, June 25. Dr. George F. Lull of Chicago, president of the foundation, accepted the check.

Dr. Oldfield said Illinois physicians have contributed \$1,200,000 to the AMEF in the last seven years, leading all other states in this respect. He added:

"It is to the credit of the medical profession that it is leading the movement to finance medical education within the framework of free enterprise. Illinois is proud of its role in this movement."

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AMA house of delegates acts on many problems

The House of Delegates of the American Medical Association, at its annual meeting in San Francisco, acted on many problems confronting medicine.

Among the topics covered were the United Mine Workers of America Welfare and Retirement Fund, social security coverage for self-employed physicians, voluntary health organizations, medical care for veterans, Medicare, legislative policies, hypnosis, and advertising of over-the-counter medications.

[For report on social security, veteran care and Medicare resolutions see PR Page.]

Dr. Louis M. Orr, Orlando, Fla., was chosen president-elect; he has been vice speaker of the House. Dr. Orr will become president next June, succeeding Dr. Gunnar Gundersen, LaCrosse, Wis., who was installed at this meeting.

UNITED MINE WORKERS

Major discussion of relations between medicine and the UMWA Welfare and Retirement Fund centered on a reference committee report which concurred in a Board of Trustees opinion that final action on two resolutions adopted in December 1957 should be postponed until the final report of the Commission on Medical Care Plans is received.

One of those resolutions declared that "a broad educational program should be instituted at once by the AMA to inform the general public, including the beneficiaries of the Fund, concerning the benefits to be derived from preservation of the American right to freedom of choice of physicians and hospitals as well as observance of the 'Guides to Relationships Between State and County Medical Societies and the UMWA Welfare and Retirement Fund' adopted by this House last June." The other resolution called for the appropriate AMA committee or council to engage in conferences with third parties to develop general principles and policies which may be applied to their relationships with members of the medical profession.

In explaining its position that final action on the two resolutions should be taken only after proper study, the reference committee said it "anticipates that the final report of the Commission on Medical Care Plans will contain recommendations serving to clarify the relationships between the medical profession, the patient, and third parties, and the committee has been assured that this can be expected." The committee also urged the commission to present its recommendations no later than December 1958.

The House of Delegates, however, by a vote of 110 to 72, adopted a floor amendment "that this section of the reference committee report be amended to show that our AMA headquarters staff is directed, under supervision of the Board of Trustees, to proceed immediately with the campaign which was originally ordered at Philadelphia last December, that no further delays will be tolerated, and that the Council on Medical Service be relieved of any further responsibility in this matter."

VOLUNTARY HEALTH ORGANIZATIONS

Dealing with problems that have arisen in the raising and distributing of funds since development of the concept of united community effort,

the House adopted the following statement offered in the form of amendments from the floor:

"1. That the House of Delegates reiterate its commendation and approval of the principal voluntary health agencies.

"2. That it is the firm belief of the American Medical Association that these agencies should be free to conduct their own programs of research, public and professional education, and fund raising in their particular spheres of interest.

"3. That the House of Delegates respectfully requests that the American Medical Research Foundation take no action which would endanger the constructive activities of the national voluntary health agencies.

"4. That the Board of Trustees continue actively its studies of these perplexing problems looking forward to their ultimate solution."

WASHINGTON OFFICE

The House adopted a resolution requesting the Board of Trustees to make an immediate survey and re-evaluation of "the functions and effectiveness of the over-all AMA legislative system, including the Washington office, in the light of present-day needs of the government, public, and medical profession alike for effective liaison between government and medicine on all matters affecting the public's health and adequate, prompt, and accurate transmittal to the full membership of the AMA of information on all current public issues in which the physician has a direct interest." The House asked that the Board of Trustees implement, as rapidly as possible, all changes and additions that its survey discloses are desirable to achieve the basic purpose of the resolution, "effective public and government relations."

MEDICAL ASPECTS OF HYPNOSIS

A Council on Mental Health report on "Medical Use of Hypnosis" was approved by the House, which recommended that it be published in the *Journal of the AMA* with bibliography attached. The report stated that general practitioners, medical specialists, and dentists might find hypnosis valuable as a therapeutic adjunct within the specific field of their professional competence. It stressed, however, that all those who use hypnosis need to be aware of the complex nature of the phenomena involved. Teaching related to hypnosis should be under respon-

sible medical or dental direction, the report emphasized, and should include the indications and limitations for its use. The report urged physicians and dentists to participate in high level research on hypnosis, and it vigorously condemned the use of hypnosis for entertainment purposes.

OVER-THE-COUNTER MEDICATIONS

The House endorsed recommendations by the Public Relations Department that:

(1) The AMA join with other interested groups in setting up an expanded voluntary program, coordinated by the National Better Business Bureau, which will seek to eliminate objectionable advertising of over-the-counter medicines.

(2) The AMA counsel with the National Better Business Bureau in the selection of a physicians' advisory committee.

(3) The established facilities of the AMA, such as the Chemical Laboratory, the offices of the various scientific councils, and the Bureau of Investigation, be made available, so far as is feasible, to aid in the carrying out of this program.

(4) The Public Relations Department continue its liaison work with the various groups involved and assist in the development and operation of this program in any way possible.

(5) The AMA become a sustaining member of the National Better Business Bureau, giving evidence of its willingness and desire to support this organization in its worthwhile activities.

MISCELLANEOUS ACTIONS

Among a wide variety of actions on many subjects, the House also:

(1) Adopted amendments to the Constitution and Bylaws which eliminate the separate offices of secretary and treasurer, combining them into one, and which change the titles of the general manager and assistant general manager to executive vice president and assistant executive vice president, respectively.

(2) Recommended the appointment of a Committee on Atomic Medicine and Ionizing Radiation and suggested that it concern itself with informing the American public on all phases of radiation hazards related to the national health.

(3) Commended the Federal Food and Drug Administration for its untiring efforts in behalf

of the public and the profession, and urged all states to review and strengthen their food and drug laws.

(4) Approved the "Suggested Guides for the Organization and Operation of Medical Society Committees on Aging," submitted by the Council on Medical Service.

(5) Requested that any funds provided under the Public Assistance provisions of the Social Security Act for medical care of the indigent be administered by a voluntary agency such as Blue Shield on a cost plus basis or by a specific agency established by the medical society of the state in which indigent care is rendered.

(6) Directed the Board of Trustees to study problems pertaining to licensure by reciprocity and to consult with the Federation of State Medical Boards in an attempt to find a satisfactory solution. (This was an Illinois resolution.)

(7) Expressed the opinion that some operating room experience is valuable and necessary training for all nurses.

(8) Recommended that general hospitals, wherever feasible, be encouraged to permit the hospitalization of suitable psychiatric patients.

(9) Approved a National Interprofessional Code for physicians and attorneys prepared by the joint liaison committee of the American Medical Association and the American Bar Association.

OPENING SESSION

At the opening session Dr. David B. Allman, retiring AMA president, urged every physician to rededicate himself to the service of mankind and every medical society to strengthen its disciplinary system "to prevent the very few from besmirching the vast majority of us." Dr. Gundersen, then president-elect, said the Association is moving ahead in finding the best possible ways to serve both the public and the medical profession. He declared there is no reason to believe that its influence and impact will not continue to grow in the times ahead. The Goldberger Award in clinical nutrition was presented to Dr. Virgil P. Sydenstricker, professor emeritus of medicine at the Medical College of Georgia.

INAUGURAL CEREMONY

Dr. Gundersen, in his inaugural address, called upon the medical profession to accept its full responsibilities in promoting better world health, brotherhood, and peace, adding that "the

time has come when medical statesmanship must be used to augment the methods of political diplomacy."

ELECTION OF OFFICERS

In addition to Dr. Orr, the new president-elect, the following officers were selected by the House on Thursday:

Dr. W. Linwood Ball, Richmond, Va., vice president; Dr. E. Vincent Askey, Los Angeles, re-elected speaker, and Dr. Norman A. Welch of Boston, vice speaker.

Dr. Warren W. Furey, Chicago, was elected for a five year term on the Board of Trustees, succeeding Dr. Edwin S. Hamilton, Kankakee, Ill. Dr. Raymond M. McKeown, Coos Bay, Ore., was re-elected for a five year term; and Dr. R. B. Robins, Camden, Ark., was named to fill the unexpired term of Dr. F. J. L. Blasingame. Dr. Leonard W. Larson, Bismarck, N. D., was elected chairman of the board at its organization meeting.

Dr. George A. Woodhouse, Pleasant Hill, O., was renamed to the Judicial Council. Elected to the Council on Medical Education and Hospitals were Dr. Leland S. McKittrick, Brookline, Mass., to succeed himself, and Dr. John V. Bowers, Madison, Wis., to succeed Dr. Victor Johnson, Rochester, Minn.

Dr. R. B. Chrisman, Jr., Coral Gables, Fla., and Dr. J. F. Burton, Oklahoma City, were re-elected to the Council on Medical Service. Dr. Russell B. Roth, Erie, Pa., was named to fill the unexpired term of Dr. H. B. Mulholland, Charlottesville, Va., who resigned.

Three members were elected to the Council on Constitution and Bylaws: Dr. William Stovall, Madison, Wis., to succeed Dr. Stanley H. Osborn, Hartford, Conn.; Dr. William Hyland, Grand Rapids, Mich., to fill the unexpired term of Dr. Floyd S. Winslow, deceased, Rochester, N. Y.; and Dr. Walter C. Bornemeier, Chicago, to replace Dr. Furey.

The House approved a Board of Trustees announcement that Miami Beach will replace Chicago as the place of the 1960 annual meeting, and New York will be the site of the 1961 annual meeting. Action was postponed on selection of the city for the 1962 annual meeting.

AWARDS

Dr. Frank H. Krusen, professor of physical

medicine and rehabilitation at Mayo Foundation, Rochester, Minn., was given the 1958 Distinguished Service Award. Special citations were given two laymen for their work in advancing the ideals of medicine: Mrs. Charles W. Sewell, Otterbein, Ind., rural health worker, and Gobind Behari Lal, San Francisco, Ph.D., science writer.



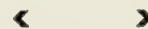
Chicago exhibit at AMA gets gold medal award

A University of Illinois College of Medicine group, with a scientific exhibit on cancer cells in the circulation of blood, presented at the AMA annual meeting in San Francisco, carried away top honors for original work.

This is of particular interest to Illinois physicians because they had a preview of this outstanding exhibit at the annual meeting of the Illinois State Medical Society in June. At that time it also was decided by the judges here that the display was worthy of first award, a gold medal.

The Hektoen gold medal was presented by the AMA to Alvin L. Watne, Stuart S. Roberts, Ruth G. McGrath, Elizabeth A. McGrew, and Warren H. Cole. The exhibit was a demonstration of exfoliation of cancer cells into the circulating blood, showed methods of blood collection, and presented techniques of isolation of cancer cells from the formed blood elements. The effects of surgery and chemotherapy were shown.

It is significant that a number of other exhibits on display at the Illinois State meeting were accorded space at the AMA sessions, and that they attracted considerable attention. This demonstrated that the cream of exhibits are being selected for display here.



Chicagoan named to head women's medical group

Dr. Katharine W. Wright, Chicago psychiatrist and neurologist, was elected president of the American Medical Women's Association at the recent annual meeting in San Francisco.

Dr. Wright, a graduate of the George Washington University School of Medicine, is an associate in psychiatry and neurology at the Northwestern University Medical School.

The annual meeting of the Illinois State Medical Society was held in the Hotel Sherman, Chicago, May 20-23. There was a total attendance of 3,117.

The scientific sessions brought prominent speakers from all parts of the country, who presented papers of unusually high caliber.

The Women's Auxiliary met at the same time, and registered a high attendance record.

Here are pictures of some of the highlights.



Shown above, at a pleasant breakfast on the last morning of the meeting are, (left) our new president Raleigh C. Oldfield and Mrs. Oldfield, of Oak Park, with our retiring president, Lester S. Reavley and Mrs. Reavley of Sterling.



At the meeting Joseph T. O'Neill of Ottawa was chosen president-elect. To succeed him as councilor of the Second District the Society elected George E. Kirby of Spring Valley.



A veteran of many years service to the Society, Charles P. Blair of Monmouth retired as a councilor for the Fourth District. To succeed him, delegates elected Fred C. Endres of Peoria Heights.

Mrs. Harlan English of Danville, treasurer of the Women's Auxiliary to the AMA serves coffee to Mrs. Fred C. Endres, Peoria Heights, newly elected president of the Illinois Women's Auxiliary, at a Continental Breakfast.

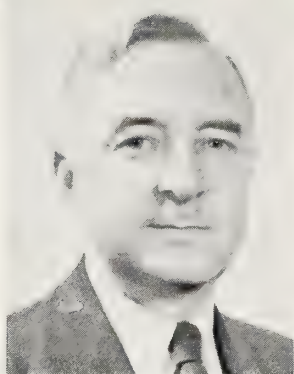
At the same breakfast Mrs. Paul C. Craig (left) president of the Women's Auxiliary of AMA, addressed the gathering. She is shown with Mrs. Nicholas G. Chester, Illinois Auxiliary's retiring president.





Dr. Alexander Marble of Boston, Assistant Clinical Professor of Medicine at Harvard Medical School, gave the oration in medicine.

of Dunham, North Carolina, Professor of Surgery, at Duke University, School of Medicine, presented the oration in surgery.



The annual public relations dinner brought as speaker, F.J.L. Blasingame, who recently became general manager of the AMA. He is shown with Percy E. Hopkins, chairman of the Committee on Medical Service and Public Relations. Dr. Blasingame enthusiastically outlined some AMA plans for the future and asked for the support of the profession.



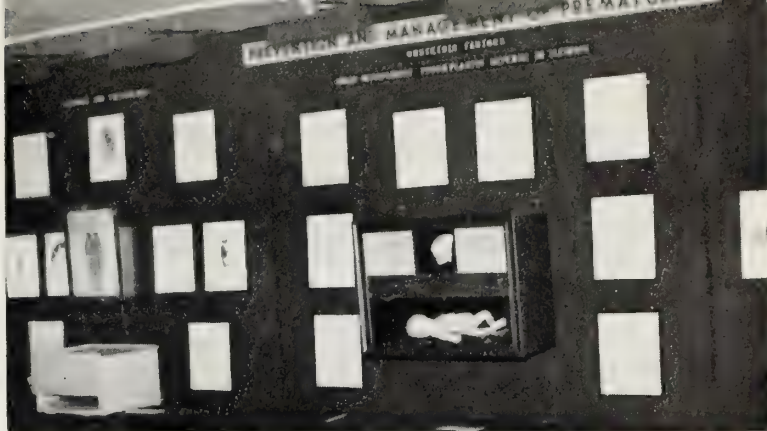
As usual, the Fifty Year Club luncheon brought an enthusiastic gathering and a surprise in the form of a gift from the members to Andy Hall the long time head of the organization. In this unusual picture are shown, (left to right) Major General Wilford Hall, Percival Bailey of the University of Chicago, one of Andy Hall's "babies", Andy Hall, Jr., Andy and Marshall Hall. All three of Andy's sons are of course doctors, as is Dr. Bailey.

At the speakers' table at the Fifty Year Club luncheon are (left to right) William S. Bougher, Ernest Irons, E. E. Davis and Gentz Perry. Dr. Perry was chairman in charge of arrangements, and the others served on his committee.

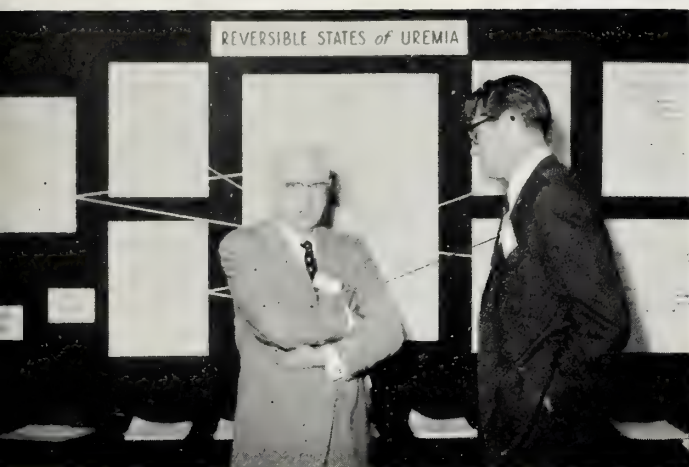


Gathered at this table at the Fifty Year Club luncheon were Rudolph Oden, Chicago; W. B. Dougherty and wife, Chicago; I. B. Diamond, Evanston; J. W. Dreyer, Aurora; J. L. Webb, Chicago; Carl H. Wilkinson, West LaFayette; G. H. Pflueger, Crystal Lake.

The year's meeting brought one of the finest scientific exhibits the Society has seen in many years. There were 27 exhibits, arranged under the direction of Coye C. Mason, as chairman of the committee. An indication of the quality is shown by the fact that many of them were later accepted for exhibiting at the AMA meeting in San Francisco, and one won a gold medal there, as it did here in the Original Work classification.



Winner of the gold medal in the Educational classification at our meeting was the exhibit "Prevention and Management of Prematurity" by Frederick H. Falls and Charlotte S. Holt, Illinois State Department of Public Health.



Winners of the silver medal in the Educational classification were John M. Coleman and Garth F. Tagge of Mercy Hospital, Stritch School of Medicine of Loyola University and Vaughn Medical Group, for their exhibit "Reversible States of Uremia".



There were 67 technical exhibitors to attract the interest of those at the meeting. In recent years there has been marked increase in the number of food products displayed. However, primary attention is always given by doctors toward learning about new pharmaceutical products and new and improved ways of using established products. Above, sampling an offering are, W. S. Swisher of Evanston and P. W. Theobald of Chicago.





Suggestions for Improving Liaison and Cooperation Between Local Medical Societies and Their Blue Shield Plans

At the 1958 National Blue Shield Professional Relations Conference, held in Chicago, the following suggestions were offered:

I. *Principles*

Blue Shield and the medical society share a responsibility to inform the physician and keep him informed about Blue Shield affairs. Frequent, informal contact between the executive personnel of the medical society and Plan is vital to good relations. A sense of common interest and identity of purpose in attacking the economic problems of medicine should be cultivated by both medical society and Plan.

Communications between Plan and physician fail unless the method and content of the communication meets the needs and approval of the profession, and the profession feels it is a part of the Plan.

II. *Things a Plan Might Do To Promote Better Professional Relations*

1. Make a personal contact with every new participating physician.
2. Emphasize in Plan indoctrination programs for sales personnel that they are representing the interests of the medical professional and should, therefore, support physicians' interests in presenting the case for Blue Shield in enrollment efforts.

3. Make sure the state society is informed of all Plan activities.
4. Give medical society officers an opportunity to sit in on contract negotiations with labor and management.
5. Provide volunteer speakers for lay groups through the medical society's speakers' bureau.
6. Provide speakers and program material for county medical society meetings.
7. Offer to assist the medical society in arranging for meetings with labor and management representatives; participate in such meetings, if requested.
8. Make program material, speakers and literature available for orientation programs provided by the medical society for its new members.
9. Entertain informal groups of medical society members at informal discussion meetings to promote better understanding of Plan problems.
10. Provide speakers, literature and program materials for "Medical Student Day" programs by medical societies.
11. Offer to assist in financing and preparing medical directories or membership rosters for medical societies.

12. Help to provide staff assistance, program speakers, exhibits and promotional aid for state society annual conferences on public relations, secretaries' and editors' conferences, or other meetings.

III. *Things a Medical Society Might Do to Promote Better Professional Relations*

1. Offer to assist and advise the Plan in the designation of the members of the Plan's Fee Adjudication Committee.

2. Arrange for guest physicians to attend each meeting of the Adjudication Committee as guests.

3. Conduct opinion polls and surveys among the public and profession to guide in future development of the Plan.

4. Hold at least one annual "gripe session" at which any physician is privileged to express his opinions of the Plan and complaints about it.

5. Encourage all members and their office assistants to become subscribers to the Blue Shield Plan.

6. Provide space for regular Blue Shield announcements and articles in the medical society journal.

IV. *Things the National Association of Blue Shield Plans Might Do to Promote Better*

Professional Relations

1. Develop a series of packets or kits on such subjects as liaison, communications, public service projects, etc.

2. Provide top-grade guest speakers of national prominence for state medical society meetings.

V. *Role of the Medical Society Auxiliary*

1. To interest and inform the physician, through his wife, concerning the purposes, philosophy, accomplishments and problems of Blue Shield.

2. To interest and inform the public with whom the physician's wife comes into contact.

Methods:

1. Meetings of county and local representatives of auxiliary with Plan staff members.

2. Distribution of Blue Shield literature to auxiliary members.

3. Blue Shield progress report to annual meeting of auxiliary.

4. Establishing a committee of state auxiliary as liaison to Blue Shield Plan.

5. Special physician-and-wife meetings in each county (partly social), combined meetings of county society and auxiliary.

(From Office Dependents' Medical Care:

Letter No. 12-58)

ELECTIVE PROCEDURES:

1. This letter is written to delineate, as far as possible at this time, the responsibility of the Government for the payment of claims covering care of controversial conditions and procedures which may or may not be considered as belonging in the general classification of "elective medical and surgical treatment," as expressed in Section 103f (5), Joint Directive for Implementation of the Dependents' Medical Care Act (P.L. 569, 84th Congress).

2. The following specific conditions and procedures are examples which are admittedly not all-inclusive; however, they are representative of the vast majority of claims and inquiries concerning questionably authorized care referred to

the Office for Dependents' Medical Care. Treatment of chronic conditions is authorized only if acute exacerbations or acute complications exist; or if surgical or other treatment procedures are expected to result in functional improvement. Comments for each condition or procedure indicate whether care rendered is or is not payable under Medicare.

UNLESS SPECIFIC EXCEPTION IS MADE IN THE COMMENT, THE CONDITION OR PROCEDURE MUST HAVE REQUIRED HOSPITALIZATION FOR PROPER TREATMENT.

a. *Ears:* Large, flapping, elephant-like or otherwise deformed or absent. Reconstruction and/or revisions of external ear only are elective and not payable under Medicare. Surgery performed for, and based solely on, psychological

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reason is not allowable. Necessary procedures for the restoration of hearing, to include reconstruction of the middle and/or inner ear and/or such part of the external ear as may be required for restoration of hearing, is allowable under the program.

b. *Eyes*: Surgery for glaucoma, cataracts, strabismus (squint) or other conditions to aid or improve the vision of the effected eye(s) is allowable. The cost of prosthetic devices or orthoptic exercises is not allowable; neither is surgery performed solely for improvement of appearance.

c. *Harelip and/or Cleft Palate*: Surgery for the initial repair, including surgery considered an integral continuing part of the initial repair, is allowable. Subsequent procedures, employed for the improvement of appearance only, are not allowable.

d. *Rhinoplasties*: When performed solely for improvement of appearance, rhinoplasties are not allowable.

e. *Congenital Defects — Skeletal*: Allowable when prescribed treatment is required to be performed in the hospital on an inpatient basis. Where it is customary for plaster casts to be applied on an outpatient basis and hospitalization is not required for proper treatment, such procedures are not allowable. Examples:

- (1) Clubfoot — uni- or bi-lateral.
- (2) Congenital dislocation of hips — uni- or bi-lateral.
- (3) Other types of congenital skeletal defects requiring casts or other treatments.

f. *Cerebral Palsy or Poliomyelitis (residuals)*: Surgical procedures such as arthrodesis, osteotomies, or tendon transplants required for the improvement or restoration of function are allowable only for the pertinent period of hospitalization specifically related to the surgical procedure but not for medical care related to the basic condition. Consequently, follow-up treatments for rehabilitation of the basic condition are not authorized; neither are payments for wheel chairs, crutches, braces, and prosthetic devices, or other adjunctive surgical support items authorized.

g. *Central Nervous System — Congenital Defects*: Surgical correction of evaginations of the contents of the vertebral column, as well as hydrocephalus and other congenital abnormalities, is allowable.

h. *Supernumerary Digits and Syndactylism*: Surgery required to improve function of the involved extremity (ies) is allowable. When performed solely at the request of the patient and/or sponsor in the absence of functional impairment, payment is not authorized.

i. *Scars*: Except as provided herein, surgery or other medical treatment on well-healed scars is not authorized. Treatment of scars that are ulcerated, or show clinical evidence of malignancy, or cause contractures which impair anatomical function is allowable. Reconstructive surgery incident to an injury is allowable as a part of the continuing total treatment of that injury and may be performed on an outpatient basis, if appropriate.

j. *Removal of Plantar Warts, Other Warts (Verrucae), Sebaceous Cysts, Condylomata, Moles, Pigmented Nevi, Hemangiomas and/or Telangiectatic Lesions*: Authorized only if they are bleeding, ulcerated, painful, or show clinical evidence of malignancy, or if the size and location produce functional impairment.

k. *Removal of Tattoos*: Not allowable.

l. *Tubal Ligation or Other Sterilization Procedures*: Authorized for payment only when, in the opinion of the physician in charge and consulting physician (s), the procedure is a necessary requirement in the proper medical management of an otherwise unrelated medical or surgical condition for which treatment is authorized under the program. Multiparity and/or the socioeconomic status of the patient are not bona fide reasons for payment of sterilization procedures under the Dependents' Medical Care Program.

m. *Mammoplasty*: Surgical procedures on the breast(s) for the purpose of effecting symmetry or alteration of size are not authorized except when severe pain and/or marked disability is present.

n. *Tests and Procedures for Sterility or Fertility Influences*: Are allowable only when clinical indication of associated pathological condition causing impairment is present. Tests are not allowable when performed solely at the request or desire of the patient (sponsor).

o. *Tests for Pregnancy*: Allowable only if the patient is, in fact, pregnant; or when considered necessary for the proper conduct of maternity or postpartum care, regardless of the test results (i.e. hydatidiform mole). These tests are not

allowable when requested by the patient and are found to be negative. When authorized, these tests may be performed on an outpatient basis as other antepartum or postpartum care.

p. *Services for "Exceptional" Children*: Not authorized. Examples include.

- (1) Cerebral palsy treatment including surgical procedures unless they qualify under paragraph 2f, above.
- (2) Speech and/or hearing therapy, or remedial reading.
- (3) Psychological testing.
- (4) Child guidance therapy.

NOTE: It is emphasized that a BASIC REQUIREMENT FOR ALLOWABILITY of claims for payment for conditions or procedures identified in subparagraphs a through p, above, IS THE NECESSITY OF HOSPITALIZATION FOR PROPER ACCOMPLISHMENT. Exceptions for injury and maternity cases have been specifically identified in subparagraphs i and o, above.

3. For all conditions outlined above and other similar or questionable cases, physicians and hospitals are urged to attach a statement by the attending physician to the Medicare Claim Form (DA Form 1863) at the time it is submitted to the Fiscal Administrator. Provided the information is adequate to establish the authorization for care and provided the charges are within the applicable Schedule of Allowances, the fiscal administrator may process the claim for payment

without reference to this office.

4. For all conditions outlined above and other similar or questionable cases, physicians are particularly urged to predetermine its eligibility for payment under the Dependents' Medical Care Program. A frank discussion of the entire problem with the patient and/or sponsor prior to the initiation of treatment is felt to be extremely advisable. PHYSICIANS, HOSPITALS, AND PATIENTS MUST REALIZE THAT THE GOVERNMENT IS NOT LIABLE FOR PAYMENT OF UNAUTHORIZED CARE. Prior to acceptance of the patient for treatment, any questionable case should be referred to the local fiscal administrator for assistance in determining eligibility. In the exercise of this function, the fiscal administrator may seek advice from the Office for Dependents' Medical Care. All pertinent facts must be submitted to the Office for Dependents' Medical Care to enable an expeditious and intelligent decision.

5. The contents of this letter are of vital importance to the operation of the program; therefore, fiscal administrators are urged to publish and distribute to physicians and/or hospitals for whom they are responsible for making payment under the Dependents' Medical Care Program.

Paul I. Robinson
Major General, MC
Executive Director
Office for Dependents' Medical Care

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"I'd rather be myself"

Perhaps one day the pharmaceutical firms will evolve the perfect drug. In Aldous Huxley's novel *Brave New World*, "soma" had all the advantages of both heroin and gin and none of the disadvantages. But some people may feel as the hero of that book did when he was encouraged

by his mistress to take a dose. "I'd rather be myself," he said, "myself and nasty. Not somebody else, however jolly." I think such an attitude is the wisest one for man to take towards his own sedation and stimulation. *R. Asher, M.D. The Sedation and Stimulation of Man. Lancet May 3, 1958.*

CORRESPONDENCE



Ninth North Shore Hospital lecture series

The ninth annual lecture series, *Emotional Forces in the Family*, has been announced by the North Shore Hospital. All members of the medical profession and allied professional personnel are invited to attend. The lectures will be given on the first Wednesday of every month, October through June, at 225 Sheridan Road, Winnetka, at 8:00 p.m. The program follows:

Oct. 1, 1958. The Development of the Family in the Technical Age. JOOST A. M. MEERLOO, M.D., High Commissioner for Welfare to Netherlands Government, World War II; Faculty, Columbia University and The New School of Social Research, New York City.

Nov. 5, 1958. The Role of the Mother in the Family. LUCIE JESSNER, M.D., Professor of Psychiatry and Director of the Child Psychiatric Section, University of North Carolina School of Medicine, Department of Psychiatry.

Dec. 3, 1958. The Role of the Father in the Family. CLAIRE M. NESS, M.D., Director, Cleveland Guidance Center; Member, Board of Directors, American Orthopsychiatric Association; Member, Board of Directors, Cleveland Welfare Federation; Consultant for Children's Services, Cleveland.

Jan. 7, 1959. The Role of Children in the Family. SIDNEY BERMAN, M.D., Faculty, Washington Psychoanalytic Institute; Assistant Clinical Professor of Psychiatry, George Washington School of Medicine; Attending Staff, Pediatric Psychiatry, Children's Hospital, Washington, D.C.; Consultant, Laboratory of Child Research, National Institute of Mental Health.

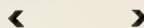
Feb. 4, 1959. The Impact of Relatives and In-Laws. NATHAN W. ACKERMAN, M.D., Associate Clinical Professor of Psychiatry, Columbia University; President, Association for Psychoanalytic Medicine; Fellow, New York Academy of Medicine.

Mar. 4, 1959. The Impact of Aging in the Family. D. GRIFFITH McKERRACHER, M.D., Professor of Psychiatry, University of Saskatchewan; Chief, Department of Psychiatry, University Hospital.

Apr. 1, 1959. The Individual, the Family, and the Community (Including Religion). JUDD MARMOR, M.D., Clinical Professor of Psychiatry, School of Medicine and visiting Professor of Social Welfare, University of California at Los Angeles; Training Analyst and Past President, Institute for Psychoanalytic Medicine of Southern California.

May 6, 1959. The Individual, the Family, and the Boss. BERTRAM SCHAFFNER, M.D., Psychoanalyst, New York City; President, William Alanson White Society, New York City; Consultant in Mental Health Services, United Nations; Associate, Graduate Seminar on Communications, Columbia University; Editor, *Conferences on Group Processes*, Josiah Macy, Jr. Foundation.

June 3, 1959. The Family of the Future. LAWRENCE S. KUBIE, M.D., Clinical Professor of Psychiatry, Yale University School of Medicine; Lecturer in Psychiatry, College of Physicians and Surgeons of Columbia University; Faculty, New York Psychoanalytic Institute.



I.C.S. regional meetings

The United States Section, International College of Medicine, announced dates for regional meetings, as follows:

August 21-23, Reno, Nev.; September 10, Billings, Mont.; September 29, Chattanooga, Tenn.; October 3-4, Mobile, Ala.; January 4-7, 1959, Miami Beach, Fla.

Write to International College of Surgeons, 1516 Lake Shore Drive, Chicago 10, for additional information.

The College's third around-the-world post-

graduate refresher clinic tour will be held October 10 to December 3. Write to Dr. Arnold S. Jackson, 16 South Henry Street, Madison 3, Wis., for details.

Help offered on setting up scientific programs

Program chairmen and secretaries of county medical societies: Do you need help in setting up your 1958-59 scientific programs?

If so, the Chicago office of the Illinois State Medical Society is ready to assist you. Preliminary work on fall and winter programs should get under way as soon as possible.

Should you need a speakers' application blank, or other information regarding the services available to county medical societies, write to Dr. Louis R. Limarzi, chairman, Committee on Postgraduate Medical Education and Scientific Service, 185 North Wabash Avenue, Chicago 1.

Hypnosis in medicine to be meeting topic

The Society for Clinical and Experimental Hypnosis, comprised of physicians, dentists, and psychologists engaged in the clinical use of hypnosis, will hold its annual meeting at the Morrison Hotel, Chicago, October 29-31.

The program will include such topics as; hypnotherapeutic control of habit patterns — drug addition, smoking, overweight; hypnosis in physical therapy and rehabilitation, asthma and allergic manifestations, pediatrics and geriatrics, surgery, internal medicine, and psychiatry; use and abuse of hypnosis in general practice; and hypnoanesthesia in obstetrics.

A program may be obtained from the society, 750 North Michigan Avenue, Chicago 11.

O. and G. Board certifies Illinois physicians

The American Board of Obstetrics and Gynecology announced the certifying of the following Illinois physicians:

Drs. Lawrence I. Bernard, Robert Bouer, Ben Gelfand, Henry Hankin, John R. Kostelny, Raymond A. McDermott, Franklin T. O'Connell, and Leonard P. Rapoport, Chicago; Robert L. Baker, Great Lakes; Irvin H. Blumfield, Alton; William H. Donovan Jr., Aurora; Henry

O. Kase, Elgin; George C. Kotalik, Berwyn; Gerald T. Riordan, Springfield; Ralph G. Ryan, Elmhurst; W. Robert Maloney, Carbondale; and Roy E. Vanderberg, Peoria.

Applications for certification, new and reopened, Part I, and requests for re-examination Part II, will be received until September 1. Write to Dr. Robert L. Faulkner, 2105 Adelbert Road, Cleveland 6, for additional information.

Clinics for crippled children listed for September

Twenty four clinics for Illinois' physically handicapped children have been scheduled for September by the University of Illinois, Division of Services for Crippled Children. The Division will count 19 general clinics providing diagnostic orthopedic, pediatric, speech, and hearing examination along with medical, social, and nursing service. There will be 2 special clinics for children with cardiac conditions, 1 for children with rheumatic fever, and 2 for cerebral palsied children.

Clinics are held by the Division in co-operation with local medical and health organizations, both public and private. Clinicians are selected among private physicians who are certified Board members. Any private physician may refer to or bring to a convenient clinic any child or children for whom he may want examination or consultative services.

September 3 — Carmi, Carmi Township Hospital

September 3 — Centralia, Community Center

September 3 — Hinsdale, Hinsdale Sanitarium

September 3 — Rock Island (Cerebral Palsy), Foss Home, 3808 — 8th Avenue

September 4 — Sterling, Community General

September 5 — Chicago Heights (Cardiac), St. James Hospital

September 9 — East St. Louis, St. Mary's Hospital

September 9 — Peoria, Children's Hospital (St. Francis)

September 10 — Joliet, Will County T. B. Sanitarium

September 11 — Anna, County Hospital

September 11 — Clinton, Christian Church

September 11 — Springfield, St. John's Hospital

September 16 — Alton, Memorial Hospital
 September 17 — Evergreen Park, Little Company of Mary Hospital
 September 17 — Springfield (Cerebral Palsy), Memorial Hospital
 September 18 — Tuscola, Veterans of Foreign War Bldg.
 September 18 — Elmhurst (Cardiac), Memorial Hospital of Dupage Co.
 September 18 — Rockford, Rockford Memorial Hospital
 September 23 — Peoria, Children's Hospital (St. Francis)
 September 24 — Aurora, Copley Memorial Hospital
 September 24 — Jacksonville, Passavant Hospital
 September 25 — Decatur, Decatur-Macon County Hospital
 September 25 — Sparta, Sparta Community Hospital
 September 30 — Effingham (Rheumatic Fever), St. Anthony Hospital

I.C.S. offers second postgraduate course

The second of two postgraduate courses offered this year by the United States Section, International College of Surgeons, will be held in Chicago, October 13-25.

The course has been arranged in co-operation with the faculty of the Cook County Graduate School of Medicine and will be conducted under the supervision of the attending staff of Cook County Hospital, Chicago.

The program will include illustrated lectures, motion pictures, anatomy demonstrations, operative clinics, and practice surgery by the participants on anesthetized dogs. Consideration will be given not only to surgical techniques, surgical complications, and management of surgical patients, but also to an intensive review of the basic sciences in relation to clinical surgery.

In addition to 20 hours of surgical anatomy on the cadaver, the program will include lectures and demonstrations on the following topics: gastric, pediatric, large and small bowel, anorectal, pancreatic, splenic, gall bladder, gynecological, hernia, esophageal, and thyroid surgery; physiology, intestinal obstruction, thoracic emergencies, cardiac arrest, hand injuries and infections, and abdominal injuries.

Write to the International College of Surgeons, 1516 Lake Shore Drive, Chicago 10, or Cook County Graduate School of Medicine, 707 South Wood Street, Chicago 12, for further information.

Laboratory animal care panel

More than 500 scientists, veterinarians, and animal technicians from the United States and a number of foreign countries will meet at the Hamilton Hotel, Chicago, December 3-5, for technical discussions of the care of laboratory animals. The occasion is the 9th annual meeting of the Animal Care Panel, an organization devoted to the exchange of information on the care of laboratory animals.

There will be reports on methods to improve conditions under which their experimental animals are housed, fed, treated, and used.

Psychosomatic medicine

The fifth annual meeting of the Academy of Psychosomatic Medicine will be held at the Park Sheraton Hotel, New York, October 9-11. The program will include formal papers, panels, and luncheon conferences. Physicians, psychologists, social workers, and nurses may attend. Write to Dr. Bertram B. Moss, 55 East Washington Street, Chicago 2, for information.

Chicago Foundlings Home offers unwed mothers aid

The Chicago Foundlings Home, 15 S. Wood Street, Chicago, presents to the unwed mother a protective, maternity home service, temporary nursery care for infants surrendered to the agency, and an adoption program for mothers who wish to use it, according to Dr. Karl A. Meyer, president of the Board of Trustees.

"It is the oldest and only co-operative home of its kind in this part of the country, where homemaking is offered in lieu of a fee," Dr. Meyer said. "It was founded in 1871 as a hospital for abandoned babies and mothers by Dr. George E. Shipman, a practicing physician, who was appalled by the absence of any kind of care for foundlings at that time. Upon recommendation of a physician, the home will accept expectant mothers at any stage of their pregnancy. Medical care can be arranged with neighboring

clinics in accordance with the mother's desire and financial situation."

A new home currently is being planned in the Medical Center, which will be located at 1720 West Polk Street.

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Medical assistants to hold annual meeting in Chicago

The second annual convention of the American Association of Medical Assistants will be held at the Palmer House, Chicago, October 31 to November 2. This organization, made up of assistants in offices of physicians, has a membership of nearly 6,000 in 17 states and has been given the approval of state medical societies and the American Medical Association.

The purposes of the AAMA are to inspire its members to render honest, loyal, and efficient service to the medical profession and to the public. Several states offer educational courses with the co-operation of colleges and universities to help the assistant become more valuable in the physician's office.

Write to Miss Hallie Cummins, Medical Record Library, Caro State Hospital for Epileptics, Caro, Mich., for further information.

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Use of ultrasonics

The American Institute of Ultrasonics in Medicine will hold its interim meeting in the Bellevue-Stratford Hotel, Philadelphia, August 23. Dr. John H. Aldes, 4833 Fountain Avenue, Los Angeles 29, is secretary.

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To discuss allergies

The Third International Congress on Allergology, sponsored by the International Association of Allergology and French Allergy Association, will be held in Paris, October 19-26. The program will include symposia on asthma and emphysema, immunology, recent clinical advances, biochemical aspects, auto-immune reactions, dermatology, and socioeconomic aspects.

Write Dr. B. N. Halpern, 197 Boulevard St. Germain, Paris VII, for information.

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Confidential

In a 1952 case in Illinois, where there is no medical statute, Mr. X sued Mr. Y for alienating his wife's affections. Mr. X sought to question his wife's psychiatrist concerning information she had revealed during psychiatric consultations. The psychiatrist refused to testify on the ground that any communications to him in the course of psychotherapy were confidential and could not be divulged without the patient's consent. The Illinois trial court upheld the claim

of privilege, even in the absence of a medical statute, and excused the psychiatrist from testifying. The case was not appealed. Three of the 17 states which do not have the orthodox physician-patient privilege have recently passed legislation providing that "the confidential relations and communications between licensed applied psychologist and client are placed upon the same basis as those provided by law between attorney and client." *Ralph Slovenko. The Physician and Privileged Communications. J. Louisiana M. Soc. Feb. 1958.*

THE P. R. PAGE

John A. Mirt



Actions by AMA House

The Reference Committee on Legislation and Public Relations of the American Medical Association's House of Delegates, at its recent meeting in San Francisco, reported on a number of resolutions of interest to county medical society PR and Legislative Committee chairmen.

SOCIAL SECURITY

The committee had before it several resolutions dealing with the question of social security coverage of physicians. The Medical Society of the State of New York, which had gone on record as supporting the idea, asked for a mail poll of the entire AMA membership. A similar request came from the Medical Society of Ulster County, New York, and a Connecticut delegate. The latter proposed coverage on a state-by-state basis, and asked for approval of that principle. Two other Medical Society of New York resolutions asked that the AMA approve full coverage and requested Congress to pass the necessary legislation.

The Texas delegation proposed a strong condemnation of the idea on the ground that "it is becoming increasingly evident that the social security system is providing the mechanism through which the practice of medicine in this country is being engulfed in the web of socialism."

The reference committee heard a great deal of argument. After deliberation, it came up with recommendations that all of the resolutions be

disapproved, except the Texas proposal which was changed to read:

"Whereas, proposals for the inclusion of self-employed physicians in the social security system have been made repeatedly and are now pending before Congress; and

"Whereas, the matter has been discussed several times before the AMA House of Delegates and its reference committees, yet there remains the necessity of reiterating our position to members of Congress and to the general public that American physicians still strongly oppose being included in the social security system; and

"Whereas, American physicians always have stood on the principle of security through personal initiative; therefore be it

"Resolved, that the House of Delegates of the American Medical Association unequivocally opposes the compulsory inclusion of self-employed physicians in the social security system."

The substitute resolution was adopted.

FORAND BILL

Two resolutions condemning the Forand Bill and any similar measure which would provide hospital and medical services for social security beneficiaries were approved by the House on the ground that such legislation would be a step toward a national system of compulsory health insurance.

The reference committee believed, and the House concurred, "that publicity concerning these resolutions should be left to the discretion

of those individuals within the Association charged with the responsibility of conducting the campaign against Forand-type legislation."

CARE OF AGED

The House adopted a resolution which called upon Congress to refrain from the passage of laws which would hamper the efforts of the newly organized Joint Council to Improve the Health Care of the Aged by making the aged more dependent upon the federal government. The Joint Council was formed by the AMA, American Dental Association, American Hospital Association, and American Nursing Home Association. The resolution asked that these organizations be given "reasonable time to work out the solution of the problem in the traditional American way."

MEDICARE

The Texas delegation introduced a resolution calling for repeal of Public Law 569 (Medicare) or its modification to provide medical care for dependents of uniformed services personnel through voluntary prepayment plans or by adequate pay increases to such personnel to enable them to buy voluntary prepaid insurance. This followed the recent action of the Texas Medical Association in dropping Medicare.

The reference committee took the position that the changes requested could be accomplished through modification of the present implementing directives without the necessity of new legislation. Therefore, it was recommended and agreed to by the House, that the resolution be not approved and that the House reaffirm its position taken in 1957 that "we are recommending that the decision as to the type of contract and whether or not a fee schedule is included in future contract negotiations should be left to individual state determination."

Also reaffirmed was the AMA's basic contention that the Dependent Medical Care Act, as enacted by Congress, does not require fixed fee schedules, that the establishment of such schedules would be more expensive than permitting physicians to charge their normal fees, and that fixed fee schedules would ultimately disrupt the economics of medical practice.

JENKINS-KEOGH

Strong support of the principle of the Jenkins-Keogh plans, under which self-employed per-

sons may establish their own retirement programs with proper tax deferments similar to those granted to employed individuals, was asked in another resolution introduced by Texas. In this, the House concurred.

CARE OF INDIGENT

Concerned over the fact that recent acts of Congress and several state Legislatures provide medical services for non-indigent at the expense of taxpayers, another resolution asked that a specially designated committee be named to study the problem and to prepare a campaign of action.

The reference committee approved the principle and recommended the matter be referred to the Board of Trustees for study and implementation. This was done.

VA HOSPITALS

A substitute resolution covering the restriction of hospitalization of veterans at VA hospitals to those with service connected disabilities was offered by the reference committee. It called attention to the fact that the government in 1957 spent \$619,614,000 on medical care of veterans in VA hospitals, of which about three fourths had non-service disabilities.

Since Congress allegedly is seeking to economize, the resolution proposed that the AMA urge congressional action to restrict veteran hospitalization to those with service connected disabilities. It also urged that the Dean's committees restrict their activities to VA hospitals that admit only patients with service connected disabilities. The House agreed.

PHYSICIAN DRAFT

Another substitute resolution presented by the reference committee dealt with the drafting of physicians in time of a national emergency. The basic selective service act covering procurement of physicians and other specialists for the armed forces expires June 30, 1959. It includes no provision for an equitable call-up of physicians.

Since the Department of Defense is preparing legislation for an extension of the draft for presentation at the next Congress, it was proposed that the AMA Board of Trustees effect a liaison with the department "for the purpose of effecting a more equitable call-up of physicians in time of a national emergency." The resolution was adopted in that form.

KOREAN ORPHANS

A resolution with a possible sentimental impact concerned the opening of American homes to Korean orphans. These children are being admitted to this country without having to meet provisions relating to aliens with tuberculosis. Many of them have been found to be infected with severe communicable diseases, including pulmonary tuberculosis and enteric diseases.

The reference committee commended the American people for their humanitarian efforts and expressed the hope that those who have undertaken the task of transporting these unfortunate children to their new homes will be able to continue their wonderful work. Nevertheless, it was felt that in the interest of these children, their adoptive families, and the communities in which they may reside there should be some control of the admission of those with severe communicable diseases. The House concurred in a

recommendation that Congress be urged to take the necessary legislative steps.

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AMA public relations institute

The American Medical Association will hold its annual Public Relations Institute at the Drake Hotel, Chicago, August 27-28.

Among the subjects to be discussed by experts in the PR field will be: the effect on medicine of changes in the social and economic life, getting along with people, how to say what you have to say, good PR projects, food faddism, and public interest in medical science news. There will be informal clinics on television, legislation, bulletins, and other subjects.

State and county medical society officials and committee members concerned with PR problems will find this institute most helpful.

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Smoking and peptic ulcer

It appears unlikely that smoking is an important and direct cause of peptic ulcer. The consumption of tobacco, particularly of cigarettes, has increased in Britain over the past two or three decades, while the incidence of gastric ulcer is thought to have diminished. In contrast, the incidence of duodenal ulcer has almost certainly increased, but in this case the association with smoking is less. Furthermore the distribution of gastric ulcer mortality throughout the world is quite unlike the distribution of tobacco smoking. On present evidence, it seems more reasonable to suggest, as a working hypothesis, that the effect of smoking is to interfere with healing of the ulcer and to help to maintain its chronicity. *R. Doll, M.D. et al. Effect of Smoking on the Production and Maintenance of Gastric and Duodenal Ulcers. Lancet Mar. 29, 1958.*

The medical lobby

Sixty years ago medical lobbying in America really came to life, in a *nice* way, with the decision of the American Medical Association—in convention assembled—that a national department of health under a secretary with cabinet status was needed. It was further concluded that the secretary should be a physician rather than a politician if the requirements for each seemed incompatible. Another issue was an antivivisection bill that had been proposed for the District of Columbia. It was then that the editor of the *Journal of the American Medical Association* insisted that resolutions will have little effect on Congress, compared with a direct approach to senators and representatives by individual physicians—in other words, the lobby. *Genesis of the Medical Lobby. New England J. Med. May 15, 1958.*

AT THE EDITOR'S DESK



We are pleased to note that the FDA wants more control over the cosmetic industry and will advocate legislation much like the "new drug" section of existing laws. This will require thorough proof of the safety of each new finished product before it reaches the market. Such legislation must await passage of the chemical food additive law.

Something must be done to curb the reckless advertising of the cosmetic industry. It is understandable that competition is keen and new items sell best. But this is no excuse for the wild and extravagant claims for cosmetics such as those containing chick embryo extracts (biostimulants), plankton, roasted and powdered hair, horse serum, amniotic fluid, orchid pollen, placenta residue, or royal jelly.

It is difficult for a physician to sit back and relax when he reads about skin tranquilizing creams that erase from the face all signs of stress and strain. The same can be said of placenta extracts to rejuvenate aging skin; the placental ingredients that go into these cosmetics are the residue left over by pharmaceutical manufacturers after the valuable constituents have been removed.

SARCOIDOSIS

The VA has linked sarcoidosis with Eastern pine tree pollen. A Washington release quotes M. M. Cummings, director of research, as saying also are found in the tuberculosis microbe, and in "two chemicals found in wax from the pollen

are similar if not identical to materials found in sarcoidosis lesions by British investigators." Further study showed that the distribution of the disease among 1,200 American veterans correlates closely with a map of pine tree areas on the east coast.

VA

The comparative cost of hospital care in VA and in nonfederal hospitals was reported recently in the Federal Medical Services Newsletter. The VA hospital cost per case was higher than either private or local government care in every type of facility except the tuberculosis hospital; three times more than in nonfederal hospitals; twice as much as in local government hospitals; and over four times as much as the average private hospital case. VA's general medical and surgical patients have an average stay of 30.2 days, about four times the average for private and general surgical hospitals.

A WARNING

Physicians cannot afford to ignore information in official brochures on new drugs. This was the tone of the speech prepared by Medical Director Holland of the FDA for the American Therapeutic Society. Many large court awards have been given for malpractice on the basis of failure by the physician to read or follow the information contained in the brochures put out by pharmaceutical houses. This is a turnabout from the time when the physician used his judgment along these lines but is not surprising, because

dosage directions, route of administration, frequency of use, side effects, signs of toxicity, and contraindications were established originally by physicians during clinical trials.

ARTHRITIS

The long term use of Plaquenil and Aralen for arthritis appears to be safe and effective. Dr. A. L. Scherbel and associates at the Cleveland Clinic have used these antimalarials on 805 patients with rheumatoid arthritis and allied diseases for periods ranging up to three years. They found a low percentage of major relapses after attaining maximum improvement. The drugs were most useful in maintaining long term suppression of connective tissue inflammation in patients with active rheumatoid arthritis.

CYTOLOGY

A new technique for obtaining sputum for diagnostic purposes was reported by Dr. Alvan T. Barach and associates at Columbia-Presbyterian Medical Center. They used a Nebu-halent to spray 20 per cent propylene glycol and 10 to 15 per cent salt solution into the lungs. The mixture was heated to irritate the membranes and stimulate coughing.

Dr. Howard F. Raskin, of the University of Chicago, told the American Medical Association conventioners in San Francisco that exfoliative cytology is more accurate than X-ray in diagnosing cancer of the gastrointestinal tract. Secretions for analysis are obtained by irrigating the esophagus, stomach, duodenum, or bowel depending upon the location of the suspected lesion. A cytologic study of stomach secretions of 131 patients led to a correct preoperative diagnosis in 125 (95 per cent) as compared with 81 (62 per cent) by X-ray.

TUBERCULOSIS

Newly reported active cases of tuberculosis have decreased 25 per cent since 1950. In this period the death rate declined 63 per cent. Good general health, a high standard of living, and improved medical care are responsible. This good record should continue unless a war, depression, or major catastrophe intervenes.

The other side of the coin shows that the incidence of tuberculosis is increasing among the aged but more than half of the cases continue to occur among people under 45. The highest percentage is in the working population between the ages of 25 and 44.

NEW

At a recent meeting of the American College of Angiology, Cartrax was reported as an effective vasodilator in the treatment of intermittent claudication.

Parke Davis has just completed a test of their four-in-one vaccine (Quadrigen) to immunize against polio, whooping cough, diphtheria, and tetanus. It was given to 300 Detroit children and is reported to be successful.

The National Institute of Health has licensed seven pharmaceutical companies to make a polyvalent flu vaccine for the army, incorporating Asian, swine, A, A-prime, and B strains. Pfizer is preparing polyvalent influenza vaccine for civilian use that incorporates four of the common strains.

Liquid Bremil is Borden's new infant food formula that is touted as being the closest approach to breast milk ever developed. It is packaged in a 13 ounce can which is sufficient for one day's feeding. It is diluted with an equal amount of sterile water and poured into the sterile bottles.

Mead Johnson deserves an oscar for their new product, Lofenalac. They spent \$85,000 developing a preparation for which there are only 420 new customers a year; no profit will be realized from the undertaking. The preparation is a ready prepared infant formula for victims of phenylketonuria. This disorder inhibits proper metabolism of phenylalanine, an amino acid, which accumulates in the blood and arrests the development of the brain. A severe mental deficiency results.

Buccal Varidase is Lederle's new enzyme tablet for controlling swelling, inflammation, and pain associated with bruises, abscesses, phlebitis, acne, and other inflammatory conditions. It helps to thin out and loosen thick and congested material in bronchitis. The tablet is absorbed in the mouth and has the same effect as the older injectable form.

The Lorfan Pediatric Ampul is Roche's new potent narcotic antagonist. The product is intended for treatment of narcotic induced respiratory depression in the newborn. An injection acts within one minute and the effect lasts two to five hours.

NEWS of the STATE



COLES-CUMBERLAND

TALK. At the June 25 meeting of the Coles-Cumberland County Medical Society Dr. Charles Supple of Toledo, presented a paper "G. U. Myiasis Due to Eristalis Tenax." This is the first recorded case in the medical literature.

COOK

BROADCAST. Dr. Angelo Creticos, Chicago, clinical assistant professor of medicine, University of Illinois College of Medicine, participated in a one hour broadcast presented by the Chicago Heart Association over FM station WESL, June 26. Dr. Creticos, in a panel on summer recreation for children with heart difficulties, explained the medical aspects of physical exertion in both limited and full activity.

HONORED. Two physicians, Dr. William H. Rubovits and Dr. Sidney Strauss, with 100 years' total service as members of the Michael Reese hospital medical staff, have been honored for distinguished and long service by their colleagues.

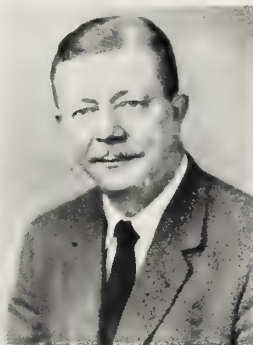
APPOINTMENTS. Dr. Murray Rabinowitz of the Rockefeller Institute for Medical Research, New York, has been appointed director of the central cardiopulmonary laboratory at the University of Chicago, effective in September. Dr. Rabinowitz received his medical degree at New York University College of Medicine in 1950.

Dr. Dwight E. Clark of the University of Chicago has been named chairman of the department of surgery. He succeeds Dr. Lester R.

Dragstedt, who becomes emeritus next year but has resigned the chairmanship to complete research.

Medical Staff. The new officers at Henrotin Hospital are: Drs. Roland R. Cross, Jr., president; George Byfield, vice president; and Caesar Portes, secretary-treasurer.

HOSPITAL PLANNING. Dr. Vane M. Hoge, Assistant Surgeon General of the United States Public Health Service, has been appointed Executive



Dr. Vane M. Hoge

Director of the Hospital Planning Council for Metropolitan Chicago. Dr. Hoge, recognized as one of the nation's outstanding hospital administrators and planning consultants, will assume the directorship of the newly formed planning council on September

25. He will conduct a continuing research program designed to provide an equitable distribution of hospitals and to determine the service requirements and needs in Chicago's rapidly growing metropolitan area. He also will study and make recommendations as to what new facilities are needed, where they should be located, what improvements must be made, and how to avoid the duplications of expensive resources.

HOSPITAL CONSTRUCTION. Work on the \$5-, 500,000 state pediatric institute for retarded children in the West Side Medical Center, Chicago, will commence this fall.

A \$1 million remodeling job of the Mother's Aid Research Pavilion of Lying-in Hospital of the University of Chicago clinics has been completed. Dr. M. Edward Davis, chief of staff, said the objective of the new three floor research laboratory will be to provide "the basic information we have had to neglect while making childbirth safe for mothers and babies."

St. Francis Hospital, Evanston, broke ground for a \$5,630,000 expansion of their present building. By constructing an extension along the front of the hospital and two at the rear, there will be 125 additional patient beds and enlargement of all departments.

EUROPE. Dr. Vincent J. O'Connor, department of urology, Northwestern University Medical School and Chicago Wesley Memorial Hospital, has entered three surgical movies in an International Urological movie contest in connection with the Belgian Urological Congress during the World's Fair at Brussels. Later he will go to Stockholm for the meeting of the International Society of Urology and to the joint meeting of the American College of Surgeons and the Swedish Surgical Society where he will participate in a symposium on urinary calculi.

Dr. Charles B. Huggins, director of the Ben May Laboratory for Cancer Research of the University of Chicago, gave the biennial Macewen Surgical Lecture at the University of Glasgow. He was the recipient of the University of London's third Comfort Crookshank Award; the German Federal Republic's Order of Pour le Merite at Bonn; the biennial Cameron Prize of the University of Edinburgh; and the University of Toronto's Charles Mickle Fellowship for 1958.

GRANTS. A \$50,000 grant from the Colonel Robert R. McCormick Charitable Trust will finance an important section of the new national headquarters building of the National Society for Crippled Children and Adults in the West Side Medical Center. This portion of the building is devoted to the nationwide personnel and training service responsible for recruitment, training, and placement of young people in the rehabilitation professions such as physical, occupational, and speech therapies. The gift will aid in facilitating granting of scholarships and

fellowships to students for specialized training in care of the crippled.

Hektoen Institute for Medical Research of County Hospital received \$15,000 for medical research from members of the Dr. Leonard H. and Louis G. Weissman Medical Research Foundation.

Dr. Guy P. Youmans, of Northwestern University Medical School, received a research grant from the National Tuberculosis Association for the year beginning July 1. Dr. Youmans will use his grant to continue trials on a blood test he helped develop that holds promise of being a method of determining active tuberculosis.

St. Elizabeth's Hospital and Dr. Lawrence G. Khedroo, senior staff surgeon received a \$6,000 research grant from the Schweppe Foundation for the further study of surgical technique in treating pancreatitis.

LECTURE. Charles I. Fisher, associate in medicine, Northwestern University Medical School, addressed the Kiwanis Club of Edgebrook, July 16, on "Physical and Mental Hazards of Aging."

SANGAMON

ANNUAL MEETING. Dr. William DeHollander was named president of the Sangamon County Medical Society to succeed Dr. Thomas Masters.

WINNEGABO

DELEGATE. Roland I. Pritikin, M.D., Rockford, is a delegate to the XVIIIth International Congress of Ophthalmology at Brussels in September. Dr. Pritikin will read a paper accompanied by his film "Mass Eye Surgery in Pakistan."

GENERAL

NEW OFFICERS. Illinois Society of Anesthesiologists: Huberta M. Livingstone, M.D., President; Lawrence Ruttle, M.D., President-elect; Harold Harris, M.D., Vice President; Clifford Baldwin, Jr., M.D., Secretary; Robert F. Finegan, M.D., Treasurer.

Chicago Medical Society: Edwin F. Hirsch, M.D., President; George C. Turner, M.D., President-elect; Patrick H. McNulty, M.D., Secretary.

Chicago Pediatrics Society: Noel G. Shaw, M.D., President; Raymond F. Grissom, M.D., Vice President; James A. Conner, M.D., Secretary; Philip L. Aries, M.D., Treasurer.

Chicago Society of Anesthesiologists: Bernard



Approximately fifteen hundred people attended the open house of the DeKalb Medical Center on May 25th, 1958. These people saw the realization of a dream of six DeKalb general practitioners. One of them, Dr. E. W. Telford, won the Illinois General Practitioner's Award in 1956. Drs. Ellis, Joost, Ladd, McAllister, Spafford, and Telford had planned on this modern medical facility for more than two years.

K. Galston, M.D., President; E. Trier Morch, M.D., Vice President; Anna E. Barnstable, M.D., Secretary-Treasurer.

AWARDS. Drs. Conrad L. Pirani and Percival M. Bailey, Evanston, were recipients of Golden Apple Awards presented annually at the University of Illinois College of Medicine to medical faculty members selected for outstanding teaching.

The Chicago Medical School conferred an honorary degree of doctor of science on Dr. Karl A. Meyer, medical superintendent of Cook County medical institutions.

Northwestern University conferred a Merit Award on Dr. Harold M. Camp "in recognition of worthy achievement which has reflected credit upon Northwestern University and each of her alumni." Service Awards were presented to Drs. Stephen E. Reid and Leonard F. Jourdonais "in recognition of loyal service rendered to the Northwestern University Alumni Association, its objectives and ideals."

Among the Alumni Citation Awards at Loyola University were those given Dr. Eugene T. McEnery for his distinguished career as an outstanding physician and medical educator, and to Dr. Gertrude Engbring for her many years of teaching service at the Stritch Medical School.

The University of Chicago Alumni Medical Association conferred a Distinguished Service Award upon Dr. LeRoy H. Sloan, clinical professor of medicine at the University of Illinois,

The DeKalb Medical Center is a modern single story building. It is fireproof and is completely air-conditioned. It houses the six general practitioner owners, three dentists who are tenants, a pharmacy that is leased, a laboratory and X-ray department, and a physical therapy department. Each physician occupies a suite 24 ft. by 28 ft. with a floor plan designed to his individual needs.

in recognition of his contributions to the advancement of the medical sciences.

At the annual meeting of the Illinois Society of Anesthesiologists in Chicago a posthumous honorary membership was awarded to Dr. Arno B. Luckhardt for his outstanding contributions to anesthesiology. Mrs. Luckhardt accepted the award. At the same meeting, Drs. Frances Haines, Mary M. Lyons, and Walburga Kacin were presented Awards of Merit for their pioneer contributions in establishing organized anesthesiology in Illinois.

OFFICER. At the 31st annual meeting of the American Goiter Association in San Francisco, Dr. Warren H. Cole, Chicago, succeeded Dr. Elmer C. Bartels, Boston, as associate president.

DEATHS

Carl H. Bartling*, Rockford, who graduated at Northwestern University Medical School in 1913, died June 8, aged 68. He was formerly affiliated with Veterans Administration Center at Temple, Texas.

Frederick W. Brian*, Bloomington, who graduated at Northwestern University Medical School in 1911, died May 31, aged 75.

William C. Eaker*, Alton, who graduated at St. Louis University School of Medicine in 1945, died in January, aged 44.

Leo Gamburg*, Moline, who graduated at the

*Indicates member of the Illinois State Medical Society.

University of Illinois College of Medicine in 1931, died June 5, aged 58.

Howard B. Herbert, Chicago, who graduated at the Chicago Medical School in 1933, died June 8, aged 60. He had practiced medicine in Chicago for 25 years.

John P. Johnson*, retired, Varna, who graduated at Bennett Medical College in Chicago in 1914, died April 3, aged 83.

Martin J. Kelly, retired, Chicago, who graduated at Loyola University School of Medicine in 1917, died June 18, aged 74. During World War I, he was head of the selective service division of the U. S. Public Health Service in the Loop.

Chester H. Keogh, retired, Chicago, who graduated at Rush Medical College in 1899, died June 18, aged 90.

Edward P. King*, Chicago, who graduated at Loyola University School of Medicine in 1926, died June 6, aged 58. He had practiced medicine on Chicago's northwest side for 32 years.

Thomas F. Kinley*, retired, Rockford, who graduated at the Chicago College of Medicine and Surgery in 1908, died June 6, aged 87.

George William Klostermann*, Irvington, who graduated at the Homeopathic Medical College of Missouri, St. Louis, in 1907, died April 7, aged 82, of coronary occlusion.

Julius F. Meyer*, Chicago, who graduated at the College of Physicians and Surgeons of Chicago, School of Medicine of the University of Illinois, in 1910, died July 3, aged 79. He was formerly associated with Michael Reese and Children's Memorial Hospitals.

John Campbell Murphy*, retired, Aurora, who graduated at the College of Physicians and Surgeons of Chicago, School of Medicine of the University of Illinois, in 1904, died April 9, aged

82. He was formerly associated with St. Joseph, Copley and St. Charles Hospitals.

Joseph Henry Pavlinac*, Hamilton, who graduated at George Washington University School of Medicine, Washington, D. C., in 1925, died April 18, aged 57, of coronary thrombosis.

John B. Preston*, Chicago, who graduated at the University of Illinois College of Medicine in 1943, died July 3, aged 41. He was a senior member of the surgical staff of St. Mary of Nazareth Hospital.

Charles L. Schmidt*, Chicago, who graduated at the College of Physicians and Surgeons of Chicago, School of Medicine of the University of Illinois, in 1908, died June 30, aged 81. He was a member of the staff of the Evangelical Hospital.

Francis J. Tenczar, Sr.*, Chicago, who graduated at the Chicago College of Medicine and Surgery in 1917, died June 15, aged 67.

Benjamin E. Twitchell*, Belleville, who graduated at the American Medical College, St. Louis, in 1891, died April 14, aged 91, of arteriosclerotic heart disease. He was a past-president of the St. Clair County Medical Society; served as president of the U. S. Board of Pension Examiners, and county physician and coroner of St. Clair County.

Charles S. Van Oosten*, Chicago, who graduated at the Chicago Medical School in 1927, died June 28, aged 69. He had practiced medicine in Chicago over 30 years.

Frederick D. Vreeland*, retired, Berkeley Heights, New Jersey, formerly of Chicago, who graduated at Dearborn Medical College in Chicago in 1905, died July 8, aged 87. He had practiced ophthalmology in Chicago for 50 years before retiring 2 years ago.

*Indicates member of the Illinois State Medical Society.

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*A Symposium on the Pharmacologic Effects of Dartal on the Liver, Chicago, Searle Research Laboratories, Feb. 7, 1958.

BOOK REVIEWS

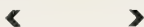


TUMOR SURGERY OF THE HEAD AND NECK.

Robert S. Pollock, M.D. \$5.00. Pp. 101. Philadelphia: Lea & Febiger, 1957.

The author states a need exists for this type of book because of the complex nature of tumors and their anatomy and because in this age of physiochemical problems and wider excision, the fundamental science of surgical technique may have been lost. For these purposes, the book is worthwhile. Each move in operative procedures is described concisely and yet with brevity. A rather complete bibliography follows each chapter. This work is entirely clinical. The text deals only with surgery of tumors about the head and neck.

C.P.B.



CURRENT SURGICAL MANAGEMENT. Edited by

John H. Mulholland, M.D.; Edwin H. Ellison, M.D.; and Stanley R. Friesen, M.D., with 76 contributors. \$10.00. Pp. 494. Saunders, Philadelphia, 1957.

"Surgery is an inexact science.—If all were known about surgical diseases, there would be little need for surgeons." There is an overpowering and unjustified authority in a viewpoint so stated without rebuttal. This book is an attempt to present varying viewpoints on certain surgical topics about which there is controversy. If this attempt were accomplished as successfully as it is succinctly stated, the sale of this book would

be phenomenal. The attempt is worthwhile in its result but many divergences remain because of lack of pointed criticism.

The book begins with consideration of acute cholecystitis: to operate early or later. After convincing reasons for each decision, the conclusion is drawn that each patient must be carefully evaluated, as to certainty of diagnosis, severity of the acute process, and associated conditions (including the patient's social and financial status). This is a logical conclusion but not new. The choice of operation for duodenal ulcer is another debatable question. The choice is between subtotal gastric resection and vagotomy with pyloroplasty. The reasons for these techniques are lucidly presented and the disadvantages are given in detail. The chapter on the nonoperative treatment of perforated peptic ulcer is not exceeded by any other in this book for its concise, accurate description of when and under what conditions conservative treatment can be instituted and continued. This treatment is quite accurately portrayed in all its facets including its advantages if used correctly and with good surgical judgment. Nowhere has this subject been discussed more intelligently and completely.

Indications and contraindications for esophagogastrostomy, total gastrectomy, and gastric bisection in bleeding esophageal varices are discussed as well as transesophageal ligation of

(Continued on page 50)

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BOOK REVIEWS (Continued)

bleeding varices. Portal decompression requires much space. Cancer of the stomach receives adequate space and information. To combat cancer the authors describe total gastrectomy, partial gastrectomy, and peritoneoscopy as well as the various conditions that modify actual treatment.

A chapter is devoted to treatment of appendicitis with generalized peritonitis. Ileitis is considered at length. So are lesions of the esophagus. The treatment of many other disorders and their possible and probable complications are discussed pro and con.

This is quite a good book and contains a great amount of diagnostic detail.

C.P.B.

BOOKS RECEIVED

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

ELECTROCARDIOGRAPHY. By Michael Bernreiter, M.D., F.A.C.P., Assistant Clinical Professor of Medicine,

University of Kansas Medical School; Chief of Electrocardiography, St. Mary's Hospital, Kansas City, Missouri; Fellow of the American College of Cardiology and Fellow of the American College of Chest Physicians. J. B. Lippincott Company, Philadelphia and Montreal. \$5.00.

NEUROPATHOLOGY. By J. G. Greenfield, M.D., F.R.C.P., LL.D., W. Blackwood, M.B., Ch. B., F.R.C.S.E., M.R.C.P.E., W. H. McMenemey, M.A., D.M., F.R.C.P. A. Meyer, M.D. and R. M. Norman, M.D., M.R.C.P., D. P. M. Edward Arnold, Publishers, Ltd. London. \$20.00.

PATHOLOGY FOR THE PHYSICIAN. By William Boyd, M.D., Professor Emeritus of Pathology, The University of Toronto; Visiting Professor of Pathology, The University of Alabama; Formerly Professor of Pathology, The University of Manitoba and the University of British Columbia. Sixth Edition. Thoroughly Revised. 489 Illustrations and 12 plates in Color. Lea & Febiger, Philadelphia, 1958. \$17.50.

ESSENTIALS OF GYNECOLOGY. By E. Stewart Taylor, M.D., Professor and Head of the Department of Obstetrics and Gynecology, University of Colorado School of Medicine, Denver, Colorado. 343 illustrations, 4 in color. Lea & Febiger, Philadelphia. \$12.00.

MEDICAL ELECTRICAL EQUIPMENT. Principles, Installation, Operation and Maintenance of Electrical Equipment used in Hospitals and Clinics. Robert E. Molloy, M.B., F.F.A.R.C.S., Advisory Editor. 238 illustrations. Philosophical Library Inc., 15 East 40th Street, New York 16, New York. \$15.00.

MODERN CLINICAL PSYCHIATRY. By Arthur P. Noyes, M.D., Superintendent of Norristown State Hospital, Norristown, Pa., and Lawrence C. Kolb, M.D., Professor and Executive Officer, Department of Psychiatry, College of Physicians and Surgeons, Columbia

(Continued on page 52)



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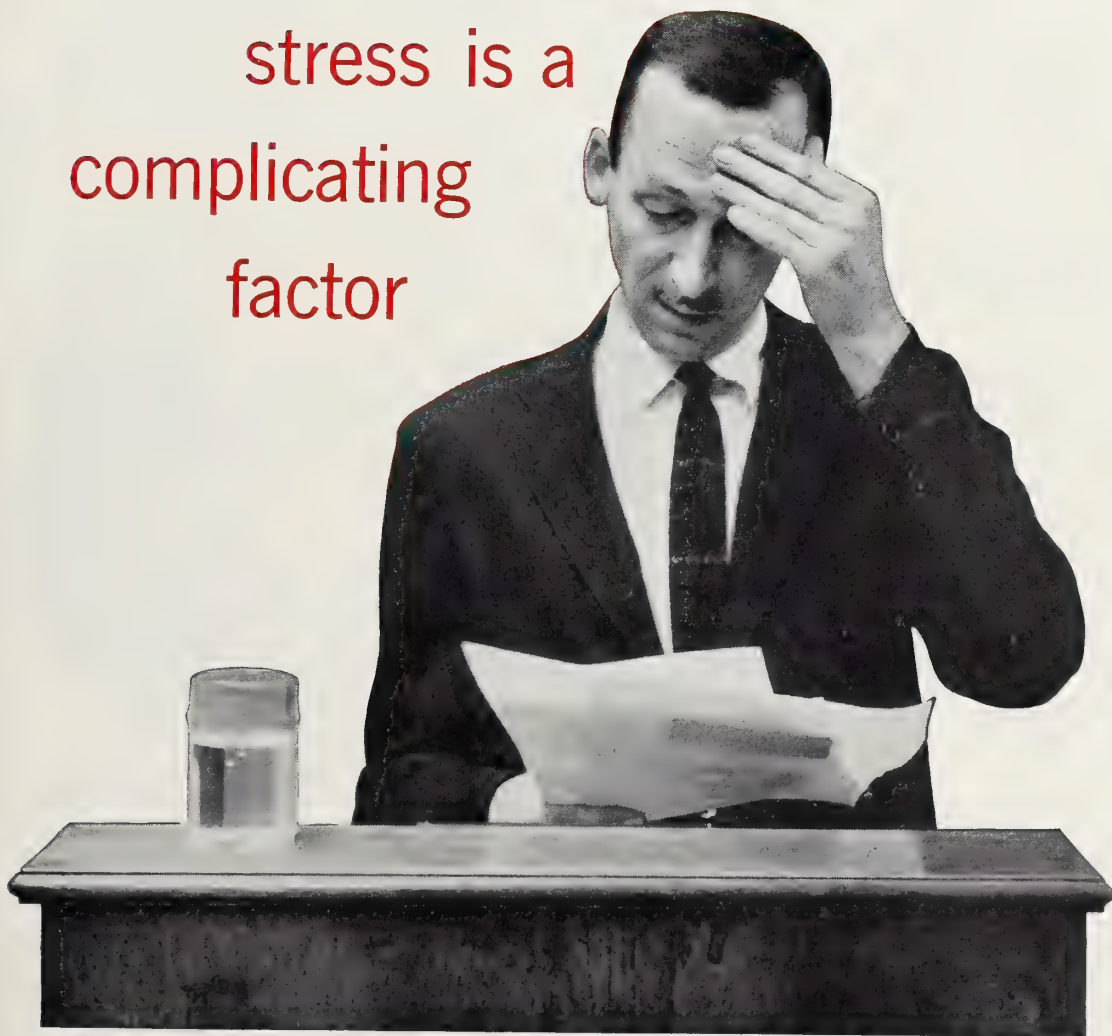
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stress is a
complicating
factor



BOOKS RECEIVED (Continued)

- University. Fifth edition. 694 pages. W. B. Saunders Company, Philadelphia and London. \$8.00.
- ORTHOPEDIC DISEASES** — Physiology — Pathology — Radiology. By Ernest Aegerter, M.D., Professor of Pathology and Director of the Department of Pathology, Temple University Medical Center and School of Medicine and John A. Kirkpatrick Jr., M.D., Radiologist, St. Christopher's Hospital for Children. 354 figures. 602 pages. W. B. Saunders Company, Philadelphia and London, \$12.50.
- THE PSYCHOLOGY OF MEDICAL PRACTICE.** By Marc H. Hollender, M.D., Professor and Chairman, Department of Psychiatry, State University of New York, Upstate Medical Center, and Director, Syracuse Psychiatric Hospital. 276 pages. W. B. Saunders Company, Philadelphia and London, \$6.50.
- THE PASTEUR FERMENTATION CENTENNIAL. 1857-1957.** A Scientific Symposium. On the occasion of the one hundredth anniversary of the publication of Louis Pasteur's Memoire sur la fermentation appelee lactique. Charles Pfizer and Company, Inc. New York.
- COMMUNICATION FOR NURSES.** By Florence K. Lockerby, A.B., M.A., Chairman of the Communication Department and Coordinator of General Education, Presbyterian-St. Luke's Hospital School of Nursing, Chicago, Illinois. With foreword by Lucille S. Spalding, R.N. B.S. M.S. Katherine Barnaby, illustrator. The C. V. Mosby Company, St. Louis, 1958. \$3.75.
- CRIME AND INSANITY.** Edited by Richard W. Nice. Philosophical Library, New York. \$6.00.
- LOVE SKILL AND MYSTERY** — a handbook to marriage. by Theodor Bovert. Doubleday & Company, Inc., Garden City, New York. 1958. \$3.50
- LIVING WITH YOUR ALLERGY.** By Samuel M. Feinberg, M.D., Professor of Medicine and Director of Allergy Research Laboratory, Northwestern University Medical School. J. B. Lippincott Company, Philadelphia and New York. \$1.25.
- ORR'S OPERATIONS OF GENERAL SURGERY.** By George A. Higgins, M.D., F.A.C.S., Associate Professor of Surgery, University of Kansas School of Medicine, and Thomas G. Orr, Jr., M.D., F.A.C.S., Associate in Surgery, University of Kansas School of Medicine. Third edition. 1990 step-by-step illustrations on 835 figures. 1016 pages. W. B. Saunders Company, Philadelphia and London. \$20.00.
- ANIMAL DISEASE AND HUMAN HEALTH.** Annals of the New York Academy of Sciences. Volume 70, Art. 3, pages 277-762. June 3, 1958. Otto V. St. Whitelock, editor in chief.
- AIDS TO MEDICAL DIAGNOSIS.** By G. E. Frederick Sutton, M.C., M.D. (London) F.R.C.P., Consultant Physician, United Bristol Hospitals. Bailliere, Tindall and Cox, London 7 and 8, Henrietta Street, W. C2.
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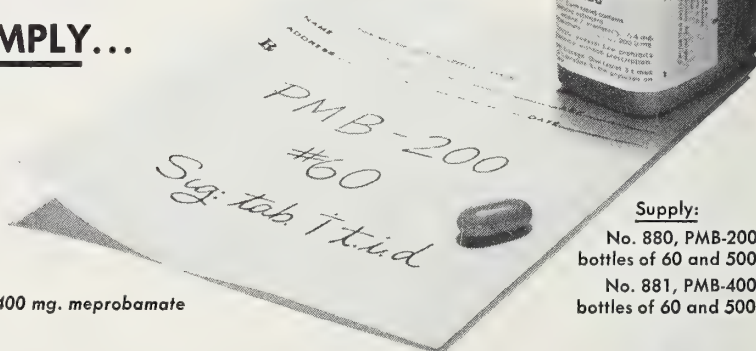
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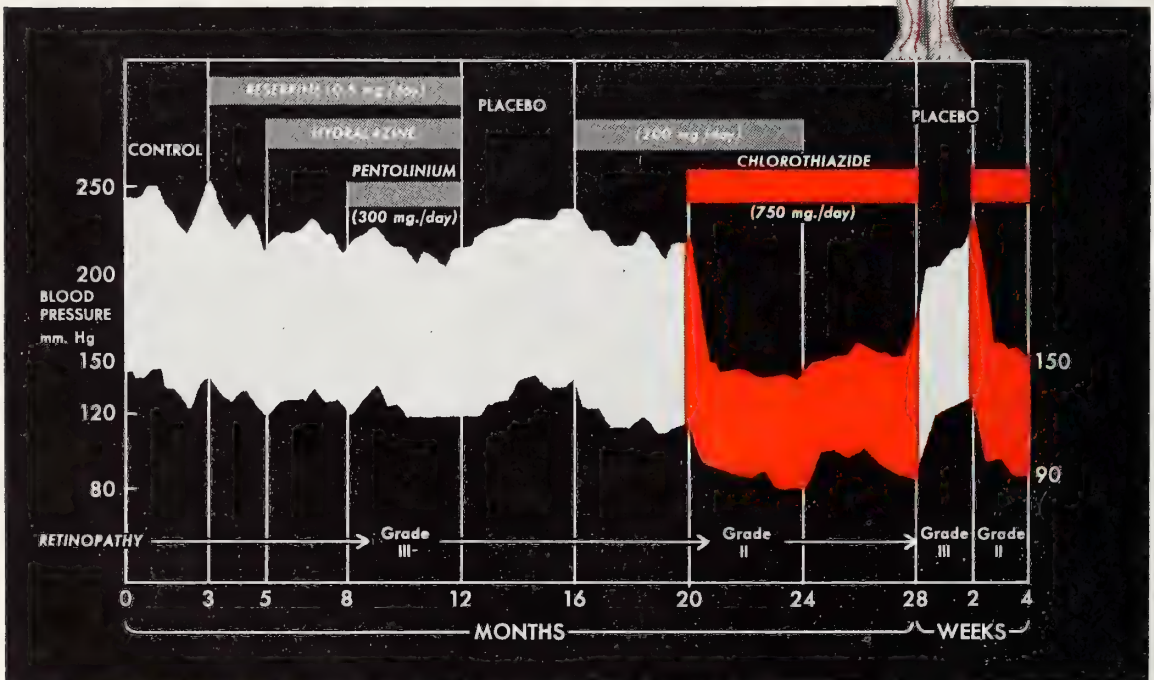
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Wilkins, R. W.: New England J. Med. 257:1026, Nov. 21, 1957.

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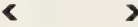
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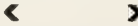
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The Month in Washington



Washington, D. C.—The civilian Medicare program is struggling through an uncomfortable period of readjustment while attempting to cut its costs by about 30%.

Had the program continued the way it was operating last year, the cost this year would be an estimated \$100 million. Instead, the Defense Department, on the urging of Congress, is attempting to keep the costs within the appropriated \$70.2 million.

No one can estimate as yet actually what is being saved. Some services that previously were authorized in civilian hospitals and from civilian physicians have been eliminated, thus shifting these costs from the government to the service families. At the same time many dependents who had been cared for outside the military now are required to go to the service hospitals.

If they don't like what is happening, there is not much the Medicare administrators, the physicians and the hospitals can do about it, at least not until the new Congress meets next January. Then, if situation is out of hand and there is widespread discontent among the service families, the problem could be returned to the lap of Congress.

Awkward as are the restrictions in some areas, the situation could have been much worse. The House originally proposed only \$60 million for the civilian program, and ordered the Defense Department not to exceed that figure. In the Senate, Senator Knowland (R., Calif.) sponsored an amendment increasing the total to \$70.2 million, and lifting the ceiling on spending. The

Knowland proposal was approved.

The conference committee accepted the Senate changes, but in its report on the bill instructed the department to stay within the \$70.2 million. This the department is attempting to do, but if the figure has to be exceeded for good reasons, the department would have to shift funds or ask for a supplemental appropriation and explain the need.

If the ceiling had been kept in the bill itself, the department couldn't have spent a penny more than the \$60 million.

Here are the major restrictions, as outlined by the department to a meeting of Medicare contractor representatives:

Dependents living with their sponsors to use military facilities, unless the military authorities certify that civilian care is necessary because service facilities are not available. Dependents not living with sponsors to have freedom of choice of military or civilian medicine, as now.

In maternity cases, if the patients are living apart from sponsors, they will continue to have freedom of choice. If living with sponsors, new patients, or those in the first trimester must use service facilities if available. Those in the second and third trimester, if under civilian care October 1, may continue, but if for any reason they change physicians, military facilities must be used if available.

The new regulations also discontinue all services "not clearly specified in the law" for all dependents. The eliminated services include medi-

(Continued on page 32)

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WASHINGTON (Continued)

cal care ordinarily rendered on an outpatient basis, acute emotional disorders, and elective surgery. Emergency care may be obtained from civilian sources without prior authorization.

Where more than one service facility is located in the area, a military clearing house will screen dependents and hospitals to insure that all service hospitals are used "to the optimum."

Congress has received a variety of advise on what to do about the hospitalization of veterans now and in the years ahead. Everybody seems to agree that 20 to 30 years from now will see a sharp increase in the number of non-service-connected disabilities among the veteran population. The question then is how many of these cases should be taken care of by the federal government.

During hearings by the House Veterans Affairs Committee, Dr. Russell B. Roth, chairman of the American Medical Association Committee on Federal Medical Services, reiterated the AMA stand that service-connected cases should receive best care possible in VA facilities

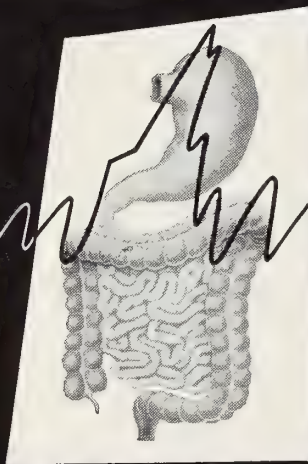
and that non service-connected illness should be the responsibility of state and local governments, if the veteran is unable to pay for his care.

Before adjourning, the House Committee introduced a bill that did little to clear up the issue of non service-connected care. It was aimed rather at the Budget Bureau in an effort to assure that some 5,000 beds now closed because of "administrative decisions," would be placed in use — presumably for non service-connected cases.

NOTES

A group of physicians, research executives, and a former director of the Budget Bureau has concluded that the nation should treble its expenditures for medical research and double its annual output of physicians, all in the next 12 years. The consultants' group to the Secretary of Health, Education, and Welfare proposes that the federal government supply about half a billion dollars by 1970, with an equal amount to come from industry and philanthropy. Head of the study group was Dr. Stanhope Bayne-Jones, former dean of the Yale Medical School.

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The ILLINOIS Medical Journal



Official Journal of The Illinois State Medical Society

SEPTEMBER, 1958
VOL. 114, NO. 3

Suicidal Poisoning

FRANK G. NORBURY, M.D. JACKSONVILLE

INGESTION of poisons by adults rarely is accidental. If industrial poisoning is excluded, suicide must be considered in the majority of adult poisoning cases. Prevention, therefore, must proceed along different lines from the labeling and warning measures now being used to prevent accidental poisoning in children. Understanding and evaluation of emotional factors and motives are of the greatest importance.

Suicidal deaths in the United States are reported at the rate of 17,000 per year and in Illinois at about 900 per year.¹ Ingestion of poisons ranks below firearms and hanging as causes but poisonings account for about 80 reported suicidal deaths a year in Illinois. Most suicidal attempts do not end in death and they frequently go unreported so that no accurate figures are available as to their incidence. Every hospital emergency room has experience with such cases; they form an important segment of emergency medical practice. In contrast to the more violent methods of suicide, friends or relatives usually bring poisoned individuals under medical observation before death supervenes. With the exception of certain rapid-action poisons, suicidal poisoning cases usually can be successfully treated.

The reasons for suicide attempts are complex and the motives given by patients or their families frequently are unreliable. In our culture, justifiable suicide or "honorable suicide" does

not occur and suicide must be considered a product of mental disease or personality aberration.

The availability and popularity of various drugs and chemicals will determine the type of poison used and varies from culture to culture. For example, in Puerto Rico in recent years, a popular method is phosphorus poisoning due to the suicidal ingestion of rat pastes.² Use of these compounds for suicide attempts in the Continental United States, even among Puerto Ricans, is extremely rare. In cultures with a high degree of development of medicine and pharmacy, prescription drugs, especially barbiturates, form by far the largest portion of poisons used. As examples, figures from New York City indicate that barbiturates account for 74 per cent of poisoning cases and in Stockholm, the percentage is about the same.^{3,4} Patients who attempt suicide with barbiturates and other hypnotic drugs usually have obtained these drugs on prescription. These patients, with various disorders and complaints of a nervous nature, often have made the rounds of several physicians and clinics and accumulated several different prescriptions in the medicine cabinet until the attempt occurs.

With the recent increasing popularity of newer sedatives and ataractic drugs, suicide attempts with these products will occur more frequently. Attempts have already been reported with glutethimide⁵ (Doriden®), meprobamate⁶ (Miltown®), Equanil®), and chlorpromazine⁷ (Thorazine®).

In obtaining histories on suicidal poisoning cases, it is noted that individuals take their drugs

Presented before the 118th Annual Meeting, Illinois State Medical Society, Chicago, May 22, 1958.

in one of three characteristic ways. The first, which I shall call "impulse consumption" is the most frequent. Here, the person may not have seriously contemplated suicide before but reacts to an overwhelming situation by impulsively emptying the medicine cabinet of all available sedatives. The severity of the poisoning will depend in part upon how much was in the medicine cabinet to start with. Barbiturates, salicylates, and opiates often are taken in this manner.

The second method is called "calculated consumption." Here, a lethal or near-lethal dose is carefully calculated in advance as part of a planned suicide. Although this method is not common, it should be understood by the physician as indicating a serious suicidal trend with the risk of another attempt unless the trend is reversed.

The third method is "serial consumption." These are the cases that may be accidental in part although it usually can be established that the suicidal wish was present. The patient takes his usual sedative in a somewhat larger dose because of more severe anxiety or impatience. This weakens his defenses so that a suicidal thought becomes more dominant and he takes more and more until he empties the bottle. When he recovers, he may have amnesia for this phenomenon or may attempt to pass it off as an accident by saying "I got confused and couldn't remember whether I took my pills, so I took some more." That this is only part of the truth is evident from the history of the events leading up to overdose.

Evaluation of suicide attempts must take into consideration both indications of danger to life from the poison itself and to the integrity of the personality from the underlying disorder. A classification utilizing both of these factors has been proposed recently by Schmidt, O'Neal, and Robins working in a large city hospital.⁸ Suicide attempts under this classification are grouped into a.) medically and psychiatrically serious; b.) medically not serious and psychiatrically not serious; c.) medically serious, psychiatrically not serious; and d.) medically not serious, psychiatrically serious. This classification is relatively easy to use and has diagnostic and prognostic value.

Examples from cases will illustrate these principles.

A 24 year old man was brought to the hospital by his wife who stated that about one hour before he had ingested 20 one-half grain phenobarbital tablets—all there were in the house—along with the entire contents of a pepper shaker. This was promptly confirmed by the patient who vomited up some tablets and pepper. Treatment consisted only of rest and observation. Recovery was uneventful. Further information disclosed a long history of petty legal offenses, repeated job failures, and tantrum-like behavior, worse when his wife was pregnant. She was pregnant at the time of his suicide attempt and her obstetrician had advised more rest. When she would not go fill a hot water bottle for the patient who was complaining of his stomach, he ingested first the pepper and then the phenobarbital. This man is an immature, psychopathic personality and his impulsive and infantile suicide attempt is a good diagnostic clew to his personality. "If you don't take care of me, I'll eat worms," about sums up his reaction. This case was medically not serious, psychiatrically not serious.

A 32 year old woman had been crying to herself for several weeks. Fellow workers noted that she appeared dazed and disinterested at her job. One evening, a friend received a call from her and noted thickness of her speech. The friend promptly went to her home and found her in deep coma. When she was brought to the hospital, respirations were observed to be slow and shallow and while she was in the emergency room she stopped breathing. She was treated with gastric lavage, fluids, and picrotoxin and was in serious coma for 24 hours. After recovery from coma, her history indicated that she had taken at least 4 grams of various barbiturates which she had obtained from three different physicians. She had considered suicide for at least a week and on the night of her attempt, she fortified herself with alcohol and then swallowed the capsules one by one. She called the friend in the middle of this process but apparently went on taking the capsules after the call. This woman was deeply depressed but made a satisfactory recovery. This was a case of calculated consumption, medically and psychiatrically serious.

Less frequent, but especially interesting are cases of suicide attempts with drugs which the patient has been using for treatment of a specific

illness. Suicide attempts with insulin have been the subject of case reports; they usually occur in diabetics who take increased amounts of their usual type of insulin.⁹ I have observed one such case, a depressed diabetic man in his 50's who was on a regular dose of 20 units of protamine zinc insulin. He injected himself with the entire contents of a vial of U-40 PZI. Despite his suicidal intentions, his diabetic training prevailed, as he injected himself in several sites and used individual alcohol sponges for each injection. He was found in his car in coma and at first was thought to be having an ordinary hypoglycemic reaction. Regulation of his blood sugar was difficult for the next four days and he continued in partial coma. The suicidal nature of this case was discovered later when his wife found the empty vial and the multiple pledgets of cotton. She had observed signs of depression in him. This case is one of calculated consumption, medically and psychiatrically serious.

Suicide with other specific drugs such as Dilantin® has been reported.¹⁰ A case involving the suicidal use of warfarin recently appeared in the literature.¹¹ The patient, an army inductee, used warfarin in its rat poison rather than its medicinal form. He had read about the effects of coumarin compounds in popular magazines, and using this information ingested a warfarin-containing rodenticide over a period of six days, taking it a little at a time as a rat might do. This resulted in a generalized petechial rash and hematuria with a prothrombin time of over four minutes. He responded satisfactorily to transfusions and vitamin K. The personality aspects of this case were not discussed in detail, so that we can only speculate about this man who knew that coumarin compounds have to be taken in cumulative doses and who ate rat-bait like a rat.

Prevention of suicidal poisonings presents several problems. Poisons are widely distributed and it appears unlikely that stricter laws regulating their use would act as a preventive measure to persons contemplating suicide. Because suicide attempts so frequently involve the use of prescription drugs, the medical profession must bear some of the responsibility for their prevention. The physician often is in a position to prevent suicide. The possibilities of a suicidal trend should be considered in patients whose symptoms are of an emotional nature or are vague and non-specific. Evidences of depression, impulsive be-

havior, obsession with insomnia, deficiencies in judgment, and alcoholism are all signs that should lead to wariness in prescribing large doses of sedatives. Care in prescribing involves limitations on amount and on refills. The patient-physician relationship itself may be a powerful factor in suicide prevention. Patients often welcome the chance to talk about their depressed feelings and suicidal thoughts if the opportunity is offered them by careful listening and judicious questioning on the part of the physician. In situations where suicidal trends are suspected, it is imperative to inform a member of the family of the risk and it may be necessary to have the family control the supply of drugs.

Many patients who are likely to attempt suicide are unable to form stable relationships and are likely to drift from physician to physician. They are able to accumulate large amounts of medication even if each physician is careful in his evaluation and prescription. Other sources of drugs, outside the physician's control, are old prescriptions left in the medicine cabinet, drugs prescribed for other members of the family, and drugs obtained from extra-legal sources.

This discussion of suicidal poisoning has attempted to point out the value of understanding the patient, his motives, relationships, and illness. The method of suicide attempt may offer clues to the personality of the patient and act as a guide to therapy.

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Juvenile Delinquency

The Physician's Responsibility And Role in Prevention

JAMES B. GILLESPIE, M.D., URBANA

THE physician has a dual opportunity to assist in combating the problem of juvenile delinquency. A direct and personal contact with children and parents facilitates early recognition of an environment that contributes to the incidence of delinquency. Also, as a respected citizen, the physician has opportunities to assume leadership in all community activities for the general improvement of child health and welfare.

Legal definitions of the term "juvenile" and "juvenile delinquent" differ somewhat in the various states. "Juveniles" according to the Model Youth Correction Authority Act of the American Law Institute Model Penal Code, 155, are boys and girls less than 18 years old. A "juvenile delinquent" is described in the Family Court Act of the State of Illinois¹ as follows:

"The words 'delinquent child' shall mean any male child who while under the age of 17 years or any female child who while under the age of 18 years, violates any law of this State; or is incorrigible, or knowingly associates with thieves, vicious or immoral persons; or without just cause and without the consent of its parents, guardian, or custodian absents itself from its home or place of abode, or is growing up in idleness or crime; or knowingly frequents a house of ill-repute; or knowingly frequents any policy shop or place where any gaming device is operated; or frequents any saloon or dram shop where intoxicating liquors are sold; or patronizes or visits any public poolroom or bucket shop; or wanders about the streets in the night without being on any lawful business or lawful occupation or habitually wanders about any railroad yards or tracks or jumps or attempts to jump onto any moving train; or enters any car or en-

gine without lawful authority; or uses vile, obscene, vulgar, profane, or indecent language in any public place or about any schoolhouse; or is guilty of indecent or lascivious conduct. Any child committing any of these acts herein mentioned shall be deemed a delinquent child and shall be cared for as such in the manner hereinafter provided."

The judge, probation officer, lawyer, police officer, and the institutional authority have direct relationships to the delinquency problem. The specific areas of their professional concerns, however, differ from those of the social worker, school teacher and counselor, clergyman, psychologist, and psychiatrist. The first group's interest in the problem is initiated when delinquency is an accomplished fact or while it is being solidified. The second group has contact with the child when delinquency may be a potential threat. The parents, and frequently a physician, have intimate contacts with the child in the formative years before delinquency or any disease, physical or mental, has occurred. It is the responsibility of every good citizen to assist in the solution of the problem, and the physician is singularly qualified to assume active leadership in this effort. A pediatrician's medical education and special background for assessment of the child's mental and physical health and his opportunity for a close relationship with the family unit afford particular opportunity for service in this field.

It has been stated that delinquency begins in the high chair and ends in the electric chair. Julius H. Miner, Judge of the Circuit Court of Cook County, Illinois,² states that what is needed most is more enlightened parents to create better homes and to take proper care of their children. The deplorable conduct of many parents is directly responsible for the breakdown of their children's morals and character.

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Dr. Eleanor T. Glueck, Research Associate of the Research Project in Delinquency, Harvard Law School,³ in describing a 10 year study of 500 delinquents and 500 nondelinquents, states: "The delinquents as a group were found to differ markedly from the nondelinquents:

1. Socioculturally, in having been reared to a far greater extent than the nondelinquents in homes of little understanding, affection, stability, or moral fiber by parents usually unfit to be effective guides and protectors;

2. Temperamentally, in being more restlessly energetic, impulsive, extroverted, aggressive, destructive (often sadistic);

3. In attitude, by being far more hostile than nondelinquents, far more defiant, resentful, suspicious, stubborn, socially assertive, adventurous, unconventional, nonsubmissive to authority;

4. Psychologically, in tending more than the nondelinquents to direct and concrete intellectual expression, and in being less methodical than nondelinquents in their approach to problems;

5. Physically, in being essentially mesomorphic in constitution (solid, closely knit, muscular)."

It also was noted that in the homes of delinquents, the ties among the members of the family were not nearly as close, the parents were less attached to each other and to their children, there was less stability in the family, less planfulness in the management of the home, less concern for the well being of the children, less of "togetherness" reflected in family group activities. These studies and similar observations suggest that effective crime prevention programs should include the overall strengthening of family life and, more specifically, the inclusion of parents in the treatment of predelinquents. Many characteristics found in these children are not abnormal in themselves but become so when they exist in excess. There can be no absolute norms.

Dr. Lois Barclay Murphy, Menninger Foundation, Topeka, Kansas,⁴ observed that mental health develops when most of the following are present:

1. A good start physiologically, freedom from gastrointestinal discomfort, frustrating defects in co-ordination, perception, intergration;

2. Emotional nourishment;

3. Adequacy of sensory stimuli;

4. Opportunity for motor development and freedom from excessive pressure for performance;

5. Range of experience;

6. Stable relations with mother during the period of establishing clear concepts of self and other persons;

7. Stable respected interests and possessions.

8. Opportunity to exercise autonomy, initiative, and industry to achieve mastery over various areas of the environment;

9. Feeling supported, accepted, a source of pride and satisfaction to parents;

10. Opportunity to cope with gradual doses of frustration and difficulty;

11. Participation in group life with some recognizably consistent pattern.

Establishment of the requisites for good mental health in a home may be unsuccessful unless parents are informed about the relationship of poor mental health to juvenile delinquency. Education, through whatever medium or agency, is successful only if the parents can be reached. Frequently families that need this information fail to read available literature and do not attend meetings or conferences on the subject. Not infrequently a physician, as the trusted friend and counselor of the family, can transmit appropriate information more successfully in a short interview than the best planned educational program an agency can convey.

During both the prenatal counseling and post-delivery periods there are opportunities to discuss the emotional needs of infants with mothers. In a few instances this may be the only occasion where the physician has an opportunity to offer some guidance relative to emotional stability and the physician should extend himself to instruct her as fully as time permits. More often, the physician sees the child and mother frequently during the period of growth, for routine examination. Parents should be informed that the average child will live within the family circle for approximately 18 years and that the development of a socially and emotionally adjusted child with whom it is easy to live is to the family's interest. They should be advised that society will teach many lessons, one way or another, and that those lessons are less painful when taught within the home rather than by outsiders who are annoyed by the child's attitudes and deportment.

Several popular fallacies about causes of juvenile delinquency have been noted by Dr. Glueck. There is no evidence that delinquents are physically unhealthy or puny children. Her studies suggested that they were in better health than nondelinquents, 91 per cent being in good health as compared to 88 per cent nondelinquents. These observations were based on standard medical examinations. There was no evidence that emotional illness or glandular disease were more frequent in delinquents. The incidence of delinquency was not higher in the families of foreign born parents or where the mother works. The same can be said of the youngest, or the only child or the first born in a family. Half of the delinquents studied were less than 8 years old when signs of antisocial tendencies first became prominent and nine-tenths were less than 11 years of age. Other authors indicate that 70 per cent of adult offenders have been juvenile delinquents.

Bakwin⁵ has noted that delinquency is prevalent today despite improvement in the general economic level, better housing, slum clearance, increased play facilities, and a wider appreciation of psychiatric knowledge. The etiology of juvenile delinquency is not clear-cut. Inadequacies and failures of the parents and the home, church, school and community are known to be causative factors, both singly and in combination. However, these same precipitating factors paradoxically may produce leaders of society under similar environmental circumstances. The substandard socioeconomic environment generally favorable to the development of delinquency by no means presages the development of delinquency in any single individual.

Community effort should be directed toward the child under 7 as well as the older groups if juvenile delinquency rates are to be reduced. The pediatrician and general practitioner have access to many mothers and children during the pre-school and early school years. In these formative years the subject of mental health and delinquency may be discussed with the mother. Emotional instability in a child and problems of delinquency should be discussed frankly. The physician should have adequate information about community resources to assist the delinquent and his family. Parents should be advised of these available services, and the physician should arrange suitable contacts from among

them. As the physician instills basic concepts of proper diet, sleep habits, and good hygiene, he should emphasize the need of the child for love, consistent discipline, and recognition. Such service by the physician requires determination, patience, and dedication to this responsibility.

Juvenile delinquency cannot be solved by any single group or discipline. It is a civic problem that must be met by the combined resources of the community and with unity of purpose on the part of all participants. The physician has the same general responsibilities as any other citizen in his community.

Arthur T. Vanderbilt, Chief Justice of New Jersey⁶, in discussing the five functions of the lawyer lists this as the fourth: "In a free society every lawyer has a fourth responsibility, that of acting as an intelligent, unselfish leader of public opinion — I accent the qualities intelligent and unselfish — within his own particular sphere of influence. In our complicated age, sound public opinion is more indispensable than it ever was; without it even courageous leadership may fail."

Along with other citizens, it is incumbent upon members of the medical profession to participate in and assume leadership of numerous projects for community betterment. A good community may be apathetic in its awareness of present day needs. The citizen-physician should be informed and familiar with slum clearance, wage scales, public health and welfare measures, recreational facilities, and many other matters within the community.

Irving Ben Cooper, Chief Justice of the Court of Special Sessions of the City of New York⁷ asks how the courts are equipped to handle the unending flow of human misery and tragedy, and states that: "What judges want to know at this point is:

"Why did he commit his act? Others, somewhat similarly placed, have not so acted.

"What was there in his experience to turn him criminal?

"What of his home, relations with parents, siblings, and neighbors? With social institutions? With peer groups? With friends and boon companions?

"Who has influenced him? After whom did he mold himself? What variety of activities did he participate in?

"What have work, love, marriage, parenthood

meant to him and how has he behaved in these relationships?

"More important, what variety of opportunities was open to him? Did he participate in his culture and cherish it? Was he proud to be an American, a Jew, a Catholic, a Negro?

"What are his interests? His skills? Whom does he love or hate? What were the provocations provided by the complainants and by the community in which he was reared and which set the behavior patterns after which he molded himself? What of the cultural and civic resources of the neighborhood? The religious institutions in which moral values and codes are taught? The schools, playgrounds, political clubs, public libraries, police, sanitary, and other services? How adequate were they to help the defendant?

"A common factor in most of these cases is that, set against the life situation, the criminal charge lacks major importance. Where there is so much deep-seated misery one additional increment does not seem to matter too much. The life situation may inhere in the defendant's relations to his mother or father, his family, tradition, his neighborhood associates, the social situation of his school or shop or other place of employment, the standards of the community as these are reflected in the magazines, papers, movies, actions of important people, envy of others. Treatment involves dealing with all these primary causes."

A program to curb delinquency must have within it the potential of a social crusade that will change the attitudes of those involved about themselves, their neighbors, and their communities and thereby change the face of the community in which those people live.

Baumgartner and Beck⁸ have designated the important components of any program to curb delinquency. These include basic prevention, early remedial work, treatment, and co-ordination. A community planning body, such as a Community Welfare Council, should co-ordinate a comprehensive program. This body may be a division of the United Fund Organization, Community Chest, or an unattached group of interested citizens. In my own community of Champaign-Urbana there are numerous groups and organizations participating in the Juvenile Delinquency program. The Council of Social Agen-

cies is an active organization which sparks and co-ordinates the program. There are juvenile divisions within the sheriff and police departments, full-time probation officers, an effective city curfew, a newly constructed juvenile detention home far removed from the county jail, and a co-operative county court.

In Illinois, the Youth Commission acts upon all youngsters adjudged delinquent by the courts. The Council of Social Agencies has been instrumental in obtaining the Youth Detention Home, the juvenile police services, and the curfew law, and has co-ordinated the general program. The Council is seeking funds for professional education of police officers and trained personnel to work with children in detention. The local need for adequate foster homes is under study. Auxiliary agencies and services in the program have been a Mental Health Clinic, the Family Service Agency, classes for hard of hearing and sight saving, special instruction for the mentally retarded, counseling agencies, improved recreational programs, and high school youth organizations. The vigor of the Boy and Girl Scouts, 4-H Clubs, PTA's, churches and youth groups, Junior Police, and Little League have been important assets.

These areas of community life present a multitude of opportunities in which the physician may find a real need for his abilities and interests. Prevention, control, treatment, and eradication of delinquency cannot be relegated to law enforcement agencies alone; it is total community responsibility in understanding, planning, and execution.⁹

Therapeutic approaches to the problem need continued study. A number of efficacious therapeutic measures are available. The remedial procedures usually are similar in every community but are individualized to meet the special needs and financial resources of the particular community. Effective therapy will be largely at a local level, using personnel and agencies from the community. Public awareness of the problem by education is the greatest single force in a therapeutic program.

Juvenile delinquency has increased and the severity of the crimes is growing worse. Should the delinquency rate remain constant, with the growth of population in the United States, by 1975 the aggregate number of offenders will be increased by 90 per cent.¹⁰ The physician may be

one of the vital forces in instituting community awareness of and interest in the problem. He has a responsibility in this field both as a citizen and a doctor of medicine.

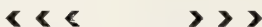
Acknowledgement is made to Mrs. C. H. Bowman, Chairman of the Committee on Juvenile Delinquency Prevention and a member of the Board of Directors of the Council of Social Agencies, Champaign County, for suggestions in preparation of this paper.

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The Rattle of the Bones

How many bones in the human face?
Fourteen, when they're all in place.

How many bones in the human head?
Eight, my child, as I've often said.

How many bones in the human ear?
Three in each, and they help to hear.

How many bones in the human spine?
Twenty-six, like a climbing vine.

How many bones in the human chest?
Twenty-four ribs, and two of the rest.

How many bones the shoulders bind?
Two in each; one before, one behind.

How many bones in the human arm?
In each arm one; two in each fore-arm.

How many bones in the human wrist?
Eight in each, if none are missed.

How many bones in the palm of the hand?
Five in each, with many a band.

How many bones in the fingers ten?
Twenty-eight, and by joints they bend.

How many bones in the human hip?
One in each; like a dish they dip.

How many bones in the human thigh?
One in each, and deep they lie.

How many bones in the human knees?
One in each, the knee-pan, please.

How many bones in the leg from the knee?
Two in each, we can plainly see.

How many bones in the ankle strong?
Seven in each but none are long.

How many bones in the ball of the foot?
Five in each, as in the palms were put.

How many bones in the toes half a score?
Twenty-eight, and there are no more.

And now, altogether, these many bones fix
And they count in the body two hundred and six.

And then we have in the human mouth,
Of upper and under, thirty-two teeth.

And we now and then have a bone, I should think,
That forms on a joint, or to fill up a chink.

A sesamoid bone, or a wormian we call,
And now we may rest, for we've told them all.

—Mother Truth's Melodies—1888—

Vasomotion in Large and Small Blood Vessels

FRANCIS J. HADDY M.D., PH.D., CHICAGO

Dr. Robert J. Adolph: It is my pleasure to introduce Dr. Francis J. Haddy, who is Assistant Professor of Medicine and Physiology at Northwestern University Medical School, and Clinical Investigator at the Veterans Administration Research Hospital in Chicago. Doctor Haddy has been actively interested in measuring vasomotor changes in large and small blood vessels for several years and has contributed significantly to our understanding in this field.

Dr. Francis Haddy: The experiments to be described were designed to measure the effects of a variety of stimuli on systemic vascular resistance. We believe our investigations show that large vessels change size significantly in the intact circulation.

The arteriole is currently accepted as being the most important vascular segment in the maintenance and adjustability of resistance to flow in the systemic circulation. However, arteries and veins also are potentially capable of active vasomotion. They are abundantly supplied with smooth muscle and nerve endings and when exposed, respond to various local physical and chemical stimuli with intense constriction.

This study was initiated in order to determine whether significant changes in the diameters of large vessels occur in response to a variety of physiological stimuli in the intact circuit. Such changes, if present, would have important effects upon the circulation. For example, it is apparent that venous constriction, by increasing resistance to blood flow, would increase capillary pressure and accelerate the filtration rate of fluid and electrolytes into the tissues. On the other hand, generalized venous dilatation would increase the pooling of blood, diminish venous return to the heart, and reduce ventricular filling and cardiac output.

The majority of the experiments to be de-

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scribed were conducted on the forelegs of anesthetized dogs. Pressures were measured at four sites along the length of the vascular bed (Fig. 1); needles were inserted into the brachial artery

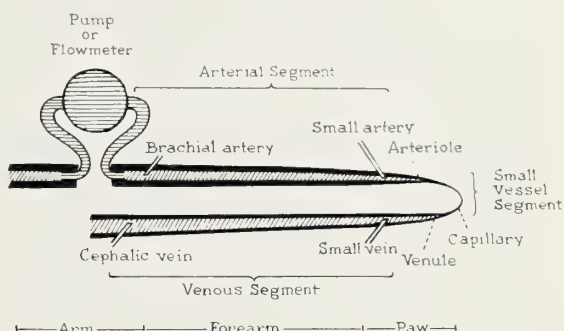


Figure 1. Schematic drawing showing experimental arrangement for measurement of small and large vessel pressures and blood flow in the dog foreleg.

and the cephalic vein, and catheters 0.5 mm. in diameter were threaded distally into a small artery of the foot pad and a small vein on the dorsum of the paw. Vascular pressures were recorded graphically by means of sensitive strain gauges and amplifiers. The rate of flow was either controlled with a blood pump nor measured with a flow-meter interposed in the brachial artery proximal to the needle.

The difference in pressure between two meas-

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TABLE 1

Av. Pressure	(mm. Hg.)	Av. Gradient (mm. Hg.)	Calculated Resistance Value at rate of flow of 100 ml./min. (mm.Hg./ml./min.)
large artery	100	25..(arterial segment)	0.25
small artery	75		
small vein	14	61..(small vessel segment)	0.61
large vein	4		
		10..(venous segment)	0.10

uring sites is the pressure gradient (P_1-P_2). This value was measured for the entire vascular bed, and the individual arterial, small vessel, and venous segments. Since the rate of flow (I) is known at all times, a resistance value (r) may be calculated from the formula $P_1-P_2=rI$ or $r=P_1-P_2/I$. For example, in the dog's foreleg the average pressures obtained in the brachial artery, small artery, small vein, and cephalic vein were 100, 75, 14, and 4 mm. Hg. respectively. The pressure gradients in the arterial, small vessel, and venous segments are 25, 61, and 10 mm. Hg. (cf. Table 1). The resistance value for the arterial segment at a flow rate of 100 ml./min. would then be $25/100$ or 0.25 mm. Hg./ml./min., and resistance values in the other segments would be computed similarly.

An increase in calculated resistance was assumed to indicate vasoconstriction and a decrease was assumed to indicate vasodilatation. These assumptions are strictly valid when the rate of flow is constant and probably are valid even when it is not.

Vessels may change size passively. For example, when flow was elevated with the pump, pressures increased in all segments. Calculated resistance decreased in all segments, presumably due to passive distention of the vessels; conversely, a decreased flow rate produced increased resistance in all segments probably as a result of passive constriction as pressures fell.

Active dilatation of all segments can be produced by injection of certain substances into the brachial artery. Among these substances are acetylcholine, papaverine, aminophylline, and Mecholyl®. While the brachial artery pressure remained constant, two micrograms of acetylcholine increased blood flow and small vein pressure and greatly decreased small artery pressure. At a constant flow rate, a constant acetylcholine

infusion caused diminished pressures and calculated resistances in all segments. Since resistances decreased in the presence of falling pressures, the active nature of the dilatations is established.

Increased body or environmental temperature and increased potassium, magnesium, or sodium concentrations also produced active dilatation, primarily in the small vessel segment. Denervation had a similar effect, and Regitine® infused into the denervated leg caused further active small vessel dilatation and occasional active artery dilatation as well. The Regitine effect presumably is due to destruction of circulating and locally released epinephrine and norepinephrine.

Active constriction of all segments can be produced by 1-norepinephrine. With brachial artery pressure maintained constant, intra-arterial injection of norepinephrine decreased the flow rate and increased markedly small artery and small vein pressures. When 1-norepinephrine was constantly infused into the brachial artery with the rate of blood flow maintained constant, pressures in large and small arteries and small veins rose, and calculated resistance increased in all segments. The active nature of the constrictions is indicated by the fact that resistances increased in the face of rising pressures. Using these techniques, Stead demonstrated venous constriction and greatly increased small vein pressures in humans receiving norepinephrine.

Active constriction of all segments also is produced by exposure to cold, and constriction of the small vessel segment occurs by increasing serum calcium concentration. Section of the vagi causes active small vessel constriction and less regularly, active arterial constriction probably by producing a generalized sympathetic discharge. Kelly and Visscher have shown that faradic sympathetic nerve stimulation constricts the small vessel and venous segments.

Certain stimuli result in combined active and passive changes in resistance. At a constant flow rate, commercial epinephrine caused active small vessel segment constriction concomitant with passive artery dilatation, the latter due to increased intraluminal pressures. The decreased calculated resistance in the artery segment, however, was less than would be expected from increased pressure alone, indicating that epinephrine also tends to constrict arteries. Another example of combined active and passive changes in resistance is venous obstruction which produces active small vessel constriction and passive artery and vein dilatation. Since, in the absence of nerve function in the limb, venous obstruction induces dilatation in the small vessel segment, the constrictor response has been called the "veni-vasomotor" or "venous-arteriolar" reflex, and Burton has suggested that this reflex may account for the spasm reported by surgeons in association with thrombophlebitis or venous obstruction.

It was surprising to find that some stimuli produce changes in resistance that are active but of opposite direction in the various segments. Exposure to a temperature of 0° C. caused active constriction of all segments, but on warming to room temperature the small vessel segment immediately dilated while in some instances the veins and arteries continued to constrict.

Stead and Wallace have reported small vein pressures as high as 40-50 mm. Hg. in humans during cold exposure. Reduction of CO₂ tension and hydrogen ion concentration by hyperventilation produced active artery dilatation and active small vessel constriction. Opposite effects were produced by breathing 20 per cent CO₂.

The most striking example of active changes in opposite directions is that produced by serotonin, which caused marked active artery and vein constriction. However, small vessels actively dilated. The total effect was little change in resistance to flow through the limb. These findings may explain how serotonin produces peculiar skin color changes without predictable blood pressure changes when injected into intact animals or man. Numerous investigators have noted that administration of serotonin produces unpredictable changes in systemic arterial blood pressure. Page and McCubbin observed that the direction of change seemed to be related to the

pre-existing level of neurogenic vasoconstrictor tone. They noted depressor responses in neurogenic hypertensive dogs and pressor responses in dogs that were hypotensive because of suppressed nervous activity.

Our findings may explain this unusual action of serotonin. Administration of serotonin, when total resistance was high, resulted in lowering of total resistance. If maximal small vessel dilatation was produced by nerve section, serotonin injection increased total resistance. The effect of serotonin on blood vessels is interesting and peculiar. How it causes arteries to constrict while simultaneously dilating arterioles is not known. It may dilate the arteriole in part through antagonism of norepinephrine. High concentrations of potassium or histamine behave somewhat like serotonin. Histamine's affect upon the venous segment is, however, more pronounced than that of serotonin. Histamine, in high concentrations, is the most potent venous constrictor we have yet observed. Its ability to dilate small vessels is equal to that of serotonin but it has less ability than serotonin to constrict arteries.

A separate study of the venous segment was performed, using local anesthesia. The average large and small vein pressures were not significantly different from those in anesthetized animals. When recorded over a long time period, wide spontaneous changes in small vein pressure were recorded without changes in large vein pressure. Unanesthetized animals with surgically induced pulmonic stenosis and tricuspid insufficiency with or without chronic congestive heart failure had, on the average, higher pressure gradients in the venous segment than did normal animals, suggesting moderate venous constriction. Four edematous extremities studied were found to have high venous gradients. Normal dogs also had high venous gradients following exercise. Flow rate could not be measured in these animals. However, the previously described experiments showed little change in venous gradient with large variations in flow. This suggests that the increase in gradient in unanesthetized animals is due to active venous constriction. A study of the venous system in humans is in progress. Only minor spontaneous variations in small vein pressures have been observed, but it has not always been possible to advance the catheter as far distally in the human as in the dog.

We feel these studies demonstrate that macroscopic arteries and veins may contribute significantly to the maintenance and adjustability of resistance to blood flow in the dog limb. Furthermore, it is seen that arteries, small vessels, and veins function as independent resistances. Their calibers may change in the same or opposite directions.

Changes in large vessel caliber are important because they produce changes of flow rate, volume, and pressures. Changes in venous caliber result in variation of venous volume and, therefore, cardiac filling as well as changes in pressures that influence fluid and electrolyte transport across capillary membranes. Active venous constriction has been observed to elevate small vein pressure to as high as 50 mm. Hg. The resulting increase in capillary pressures produces a net fluid loss into the tissues. High concentrations of histamine produce massive pitting edema within 15 minutes. Further knowledge about venous resistance and small vein pressure may shed light on edema production and tissue water storage. Changes in artery caliber probably do not influence blood volume distribution as acutely as do variations in venous caliber, but they greatly influence capillary pressures.)

Dr. Adrian Ostfeld, Assistant Professor of Preventive Medicine: Have you been able to measure the effect on small vessel resistance of constriction of a single small vein?

Dr. Haddy: We have performed our studies on the whole arm. However, Burton has distended single vein segments. He observed a decrease in flow rate presumably due to reflex arteriolar constriction resulting from the veni-vasomotor reflex.

Dr. John Frenster, Instructor in Medicine: Does an active change in diameter occur in the veins proximal to the antecubital fossa?

Dr. Haddy: We have not studied these veins but the studies of others indicate that it may occur.

Dr. David Gellman, Research Assistant in Medicine: Was the venous flow measured directly, or was it assumed to be equal to the arterial flow?

Dr. Haddy: It was assumed that, in a state of equilibrium, outflow would equal inflow.

Dr. Gellman: I wonder if, under conditions of increased capillary pressures, loss of fluid may be great enough to decrease outflow?

Dr. Haddy: I do not believe that fluid loss would be enough to influence calculation of resistance significantly.

Dr. Gellman: Do not the formulae for resistance calculation in large vessels assume a Newtonian fluid with nonpulsatile and streamline flow?

Dr. Haddy: No. One may make resistance calculations with any kind of fluid and under any conditions of flow. It is true, however, that interpretation of a resistance change becomes more complicated when a nonhomogeneous fluid is used. We know that in the smaller vessels the red cells tend to collect toward the center and the plasma toward the outside of the stream as the velocity of flow is elevated. This theoretically would alter the viscosity and influence the resistance independently of changes in vessel caliber. We attempt to avoid this by making resistance calculations only when flow rate is constant.

Dr. Gellman: Should not flow rate be measured in mm./min. instead of volume/minute?

Dr. Haddy: A constant volume rate of flow is adequate for our purposes. Under this condition, velocity will change only if preceded by a change in vessel caliber. A change in calculated resistance then will have been initiated by a change in caliber. Certainly, once a change in caliber has occurred, it is theoretically possible that the change in calculated resistance will be modified towards the control value by changes in viscosity. It is my opinion, however, that dynamic changes in viscosity are less important in determining resistance than some investigators would have us believe. We have found little difference in the slopes of pressure flow curves with dextran or blood in dead legs. Levy's studies lead to the same conclusion. Rennie has been unable to demonstrate resistance changes when perfusing blood at different rates through very fine capillary tubes made of glass.

Dr. Harry Bliss, Assistant Professor of Medicine: The validity of these calculations relies on the preparation being in a steady state. If there is venous constriction, then I would expect outflow to be less for a period of time.

Dr. Haddy: We mainly use constant infusions of drugs and after about five minutes the pressures have leveled off. We then probably have essentially a steady state.

Dr. Bliss: I wonder if, in certain circumstances, there might be a shunt around the small

vessel segment due to arteriovenous anastomoses?

Dr. Haddy: Certainly, there are arteriovenous

anastomoses, but they are smaller than the small vessel catheters. The small vessel segment includes all vessels less than 0.5 mm. in diameter.

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Medico-Legal Aspects of Treatment in Automobile Accidents

MR. WALTER L. OBLINGER, SPRINGFIELD

What duty, if any, does the physician owe the general public to render emergency treatment? Let's take the situation where a physician happens by an automobile accident or he is interrupted at a theatre by the call, "Is there a doctor in the house?" In general it can be said that he owes no legal duty to aid others even though he may realize that the victim is in great peril. No matter how unreasonable or morally reprehensible his refusal may be, there is no legal duty. To be a legal duty, there has to be a relationship between the parties. This relationship, so far as the physician is concerned, usually arises by way of contract either express or implied. If a man is dying and might be saved, a physician is under no legal duty to respond.

However, the situation is different where one prevents another from aiding the victim. In the situation referred to above let us assume the physician stops his car at the accident scene and interferes with attempted first aid. If he says, "You are not doing that right. What are you trying to do, kill him?" and thereby persuades those rendering first aid to desist. "One who without a privilege so to do intentionally or negligently prevents a third person from rendering assistance, be it gratuitous or otherwise, to another is liable for injury caused to that other by the absence of the aid which he has prevented the third from giving." *Metallic Compression*

Casting Co. v. Fitchburg R. Co., Sup. Jud. Ct. of Mass., 1872, 109 Mass. 277, 12 Am. Rep. 689; *Concordia Fire Ins. Co., v. Simmons Co.*, Sup. Ct. of Wis., 1918, 167 Wis. 541, 168 N.W. 199.

What about the situation where a physician is called and he promises to come immediately or at a stated time and fails to show up? Does he incur any liability? The general rule appears to be that one who undertakes to do an act for another, without reward, is not answerable for omitting to do the act, and is responsible only when he attempts to do it, and does it amiss. See *Prosser On Torts*, sec. 32, p. 192 et seq.; also Bohlen, *The Moral Duty to Aid Others as a Basis of Tort Liability*, 1908, 56 U. Pa. L. Rev. 217, 221. In other words, he is responsible for a misfeasance but not for a nonfeasance even though special damages are averred, yet the court held in the case of *Gerken v. Plimpton*, 70 NYS 793, that a physician will be liable where, having notified the patient he will be absent for a specified time, he remains away longer and injury results from lack of treatment during that time.

On what basis might the doctor be held where no prior physician-patient relationship existed? The courts might hold that a promise to come is an assumption of a duty and a circumstance upon which the physician might perceive that the patient would rely. Prosser, *ibid.* indicates that this is a twilight zone and that during the last century liability for nonfeasance has been extended beyond contract to a limited group of relationships, in which public sentiment and views of social policy have led the courts to find

Associate Counsel, Illinois State Medical Society. Presented at the Postgraduate Conference, Illinois State Medical Society, Mattoon, April 17, 1958. Special guests were members of the Coles-Cumberland County Bar Associations.

a duty of affirmative action. Prosser issues a warning to the medical profession in his statement, "It is not likely that this process of extension has ended."

Malpractice arises out of the relationship of the physician and his patient. First aid may be rendered in an emergency without the establishment of the relation of physician and patient, and the only duty devolving on the physician in such circumstances would be to use ordinary care in administering such treatment. See *Medical Malpractice*, Regan, p. 31; and *Birmingham Baptist Hospital v. Crews* (Ala.), 157 So. 224, where the court held that the rendition of emergency treatment did not constitute acceptance of a patient. It would appear that the duty imposed on the physician under this situation has a direct relationship to the exigencies of the case. The courts apparently—as a matter of public policy—have recognized that it is socially desirable that physicians render first aid in emergencies without incurring undue liability. Illinois recognizes this doctrine. See *Ritchey v. West*, 23 Ill. 385 which holds that where services are rendered gratuitously, a physician and surgeon is liable only for gross negligence.

The relationship of physician and patient is said to begin when the physician responds to the express or implied request that he attend the prospective patient and undertakes to render the service required of him. It ends only when the patient no longer needs the professional care, or when the physician is otherwise properly relieved of his obligation. See *Lawson v. Conway* (W. Va.), 16 S.E. 564; *Ricks v. Budge*, (Utah), 64 Pac. (2d) 208; *Hopkins v. Heller*, 59 Cal. App. 447; *Taylor v. DeVaughn* (Cal.), 266 Pac. 960.

Once having entered upon the relationship how can a physician legally get rid of it? Suppose he simply stays away from the patient? The case of *Knowlles v. Kinton, et al.*, (Colo.) 263 Pac. 26, held that a physician cannot discharge a patient and relieve himself of responsibility for the case by simply staying away without notice to the patient. What about that notice? Can the physician abandon a patient at a critical stage by walking out? A physician or surgeon who leaves or abandons his patient in a critical stage of disease, without reasonable notice to enable the patient to secure another medical attendant, when giving of such notice is

reasonably possible, is guilty of culpable dereliction of duty, and if damages are occasioned thereby, he is liable therefor. See *Stohlman v. Davis* (Neb.), 220 N.W. 247.

What if the physician procures another physician who subsequently turns out to be less qualified or experienced? In the case last cited the court held that the substitution of a much less experienced physician by the physician engaged, whose condition prevents the rendition of further services, without notifying the patient so as to enable him to select another physician, is in effect an utter abandonment of the case.

When does the physician's duty to the patient cease? What about the surgeon who performs an operation? Can he go off on a vacation as soon as he leaves the operating room? The case of *Gross v. Partlow* (Wash.), 68 Pac. (2d) 1034, is authority for the holding that a physician or surgeon, on undertaking an operation on a patient, is not justified in ceasing to attend the patient after operation while further care and treatment are necessary.

The physician's duty to the patient may be terminated at any time by his being discharged by the patient. He may withdraw from the case *but only* after reasonable notice has been given the patient and when there is reasonable opportunity to fill his place. What is fair notice depends upon the circumstances of each case. *Burnett v. Layman* (Tenn.) 181 S.W. 157.

What is the nature of the duty imposed on the physician? In the code of Hammurabi, Babylon, about 2250 B.C. the law imposed an insurer's liability on the physician of that day. "If a physician make a deep incision upon a man with his bronze lancet and destroy the man's eye, they shall cut off his hand." Regan, *Medical Malpractice*, p. 34.

It is well settled that the physician, surgeon, or dentist does not, in the absence of special contract, impliedly warrant the success of his treatment or operation. See *Knowles v. Blue* (Ala.), 95 So. 481, *Bowers v. Santee* (Ohio), 124 N.E. 238. In the absence of express contract, he is not held to be a warrantor or guarantor of a good result. See *Dunn v. Beck* (Mont.), 260 Pac. 1047.

In Illinois the degree of care expected of a physician is well settled and may be stated to be reasonable and ordinary skill and diligence. *McKee v. Allen*, 94 Ill. App. 147. A more recent

case, *Holden v. Stein*, 38 N.E. 2d, 378, defines the duty this way, "A physician is bound to exercise reasonable skill such as physicians in good practice ordinarily use in a similar case in the same locality."

In the situation where local physicians will not express an opinion can counsel bring in a physician from another community such as the city of Chicago to testify? The case last cited and the case of *Schireson v. Walsh*, 187 N.E. 921, 354 Ill. 40, holds that a physician and surgeon must possess and use *only* that reasonable skill such as physicians in good practice ordinarily use and would bring to a similar case *in the same locality*. Also see *Weintraub v. Rosen*, 93 F. 2d. 544.

It would appear, therefore, that the standard of care expected of physicians varies from place to place and what might be considered ordinary care in a medical center of Chicago would not necessarily serve as a standard in a smaller community. The reasonable and prudent man test, as applied to the ordinary negligence case, does not apply to the medical community—at least, it must be modified to conform to the standard of medical care in the particular community. Will the circumstance that a physician cannot be obtained in the locality to testify in order to establish the standard of medical care prevent counsel from establishing this element of his case? The case of *Hoover v Goss* (Wash.), 97 Pac. (2d) 689 holds that the duty can be shown by establishing the ordinary degree of skill and learning commonly possessed by reputable physicians in the same general line of practice, either in the same locality or similar localities.

RES IPSA LOQUITUR

A study of malpractice cases presented in the courts across the land seems to point up a common error made by lawyers generally in applying this doctrine. The tendency is to evaluate the result in a particular case and then work backwards. The patient receives an X-ray burn, complications set in after a serious operation, or some part of the body becomes paralyzed. The patient or his family blames the physician and runs to an attorney. The attorney, following the precept that for every injury there must be a remedy, thinks the physician guilty of negligence. The truth is, the law recognizes that the practice of medicine is not an exact science and

that the physician is not an insurer of guarantor of a result. See *Olander v. Johnson*, 258 Ill. App. 89.

What the lawyer has to do in evaluating his cases is to re-create the situation, to re-enact the operation, the diagnosis, and treatment and apply the test of ordinary care. Setting aside the question of assumption of the risk, he must ask himself, could the result have been anticipated? In what manner did the physician violate prevailing concepts of good practice? This is not always easy. But, except in unusual circumstances, the courts are going to require that the plaintiff establish by competent medical testimony that the physician — in the light of the existing circumstances and as judged by the prevailing standard of medical care—violated concepts of good practice.

The courts have held that the physician is not an insurer of the safety of his patients from dangerous agencies employed, such as X-ray, electricity, radium, surgical instruments, poison, and anesthetics. See *Nixon v. Pfahler* (Pa.), 124 Atl. 130 and that a physician is not liable for mere failure to cure, see *Merryman v. Bunch* (Tenn.), 145 S.W. (2d) 559.

When, then, does the doctrine of *res ipsa loquitur* apply? Basically the doctrine is this: Negligence may be proved by circumstantial evidence, where:

- (a) the accident is of a kind that ordinarily does not occur in the absence of someone's negligence, and
- (b) it is caused by an instrumentality within the exclusive control of the defendant, and
- (c) the possibility of contributing conduct that would make the plaintiff (patient) responsible is eliminated.

See *Prosser on Torts*, sec. 43, p. 291. For a good discussion of the problem see *J.A.M.A.* 163 [12]: 1055.

Here, the court often does not need the testimony of a medical expert to establish negligence or a breach of the duty. Testimony of a layman is sufficient. In the case of *McLeod v. Hicks* (N. Car.), 164 SE 617, the court held that the testimony of a layman with respect to the location of an incision or wound on the exterior of the body is entitled to the same weight as that of an expert witness. Where a patient proved that that incision was closed over a lap sponge used in abdominal operation, expert testimony con-

cerning negligence of the operating surgeon was unnecessary. See *Funk v. Bonham* (Ind.) 183 N.E. 312. It is common knowledge that removal of a portion of the soft palate and of the uvula is not part of a tonsillectomy. See *Thomsen v. Burgeson* (Cal.), 79 Pac. (2d) 136.

CORONER CASES

Does the attending physician in an accident case have any responsibility so far as notifying the coroner when the victim dies? The new coroner act, drafted and offered by the Illinois State Medical Society with the co-operation of the Illinois Coroners Association, which went into effect on July 5, 1957, provides under section 10.6 thereof, as follows:

"Every law enforcement official, funeral director, ambulance attendant, hospital director, or administrator or person having custody of the body of a deceased person, where the death is one subject to investigation under Section 10 of this Act, and *any physician in attendance upon such decedent at the time of his death*, shall notify the coroner promptly. Any such person failing to so notify the coroner promptly shall be guilty of a misdemeanor, unless such person has reasonable cause to believe that the coroner had already been so notified." See Chap. 31, Ill. Rev. Stats., 1957.

TESTIFYING IN COURT

We shall not here discuss the distinction between the testimony of what I like to refer to as an "occurrence witness" as opposed to that of an "expert witness." The problem that gives rise to more confusion and friction between the medical and legal professions than any other is whether the doctor may be compelled to testify at all and if so, is he entitled to a fee over and above that given the ordinary witness.

What is the law? If the physician is an "occurrence witness" — i.e. if he sees the patient at the time of the accident or treats him subsequently, he is required to testify concerning the facts in his possession. Once he takes the stand may he be required to answer questions calling for his opinion as an expert, even though he has not been compensated for such services? The general rule is that an expert witness is not entitled to extra compensation for testimony he may be required to give under an ordinary subpoena — that is, for testifying to facts within

his knowledge — although it may have required professional study, learning, or skill to ascertain these facts. There are two exceptions to this rule. The first exception: When the witness is obligated to perform such special tests, examinations, and inspections before testifying, he may arrange to be paid for such services. The second exception: When there is a specific statute relating to expert witness fees, he may receive any amount thereby allowed. *But under no circumstances* is an agreement for extra compensation of either ordinary or expert witnesses valid if it is contingent upon the outcome of the lawsuit.

All citizens owe a duty to aid in the administration of government and thus may be compelled to appear and testify in court, even in the absence of a statute providing for specific compensation. The administration of justice is a source of mutual benefit to all members of a community. Each citizen's time in so testifying may be claimed by the public as a tax paid by him to that system of law which protects his rights as well as those of his fellows. *The Doctor & The Law*, Vol. 1, No. 3, dated January, 1958, Callaghan & Co., Chicago.

Illinois cases in point are *Wright v. People*, 112 Ill. 540, which involved the refusal of a doctor to give an opinion as to the cause of symptoms discovered in a patient without payment of an expert's fee; *Dixon v. People*, 48 N.E. 108, 168 Ill. 179, and *North Chicago St. R. Co. v. Zeiger*, 54 N.E. 1006, 182 Ill. 9, which cases held that a physician subpoenaed as an expert witness may be punished for contempt for refusing to testify, even in a civil case, though no compensation greater than that allowed an ordinary witness has been paid or promised him, the fees specified in the statutes being the only fees provided for by law. The most recent case in Illinois is the case of *Commissioners of Lincoln Park v. Schmidt*, 69 N.E. (2d) 869, 395 Ill. 316, which held that a witness can be compelled to testify despite his objection that he is entitled to be paid on the basis of being an expert.

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The Physician and the School Health Programs

W. L. CRAWFORD, M.D.* ROCKFORD, AND W. W. FULLERTON, M.D., SPARTA

At the meeting of the Council of the Illinois State Medical Society, May 20, 1958, it was suggested that an article be published in the Illinois Medical Journal stressing the attitude of the physician toward school health programs. This was referred to the Committee on School Health.

The Committee on School Health feels it is the duty of every physician to co-operate with all school health programs at the local level; medical guidance for these programs should be provided wherever and whenever possible.

A Joint Committee on Health and Education has been working to revise and improve our supervision of the school child's health. Various members of the Committee on School Health have represented the society at meetings on the Joint Committee. The following report was presented by the Committee on School Health and accepted at the annual state meeting. It will give a good framework of reference of the mutual attitude of the medical profession and of the school health program toward each other:

Every school should have a school health committee with at least one physician as a member. A county advisory school health council will improve co-ordination. Every medical society should have a school health committee or one physician to serve as liaison with the school system. The committee or physician should develop broad understanding of the school's program, services, and facilities so that full interpretation can be given to other members of the county medical society to enable them to establish policies.

I. Appraisal of health status:

(A) The responsibility for the health of the child rests with the family.

(B) A physical examination should be completed by a physician every four years, when a child transfers from one school to another, or following severe illness or accident. The

examination should be carried out by the family physician. This gives an opportunity for the physician to render health education as well as to counsel the family and child. He should encourage follow-up for correction of remediable defects. If the family is unable to bear the full cost of continued medical care, referral should be made to proper agencies in or visiting the community.

(C) A continuous health record should be kept in the school for each child and it should include all recommendations for follow-up of any defects found.

(D) These records should be reviewed by the teacher and the health service and recommendations followed. Information from the records should be used for teacher-parent or nurse-parent conferences in which the child's needs are interpreted and questions answered. Caution should be used in matters where information should be kept confidential for protection of the individual. A copy of the health record should accompany the child when he transfers to another school.

(E) The teacher or nurse should be alert to observe physical defects or abnormal behavior patterns and refer the family to the physician when indicated. Height and weight should be measured at regular intervals to give a picture of the child's growth and development. Nutrition should be considered. Use of grids may assist the teacher or nurse in following the child's physical development.

(F) Vision and hearing screening tests are recommended, with referral to the family physician or clinic of those needing follow-up.

(G) The physician should identify the severely handicapped child and recommend proper treatment for maximum rehabilitation. He should make detailed recommendations regarding the capacity of the handicapped child for participation in the education program.

(H) It is recommended that all school per-

*Chairman of the Committee on School Health.

sonnel have a pre-employment examination and regular employment examinations no less frequently than every two years. The annual chest X-ray is recommended.

(I) Examination should be given school personnel exposed to special risks.

(J) Food handlers should receive, in addition to the pre-employment examination, an annual examination with special consideration of their type of employment.

II. Prevention and Control of Disease.

(A) All unimmunized children should be immunized according to established policies and a record of the immunizations given. Boosters and revaccinations should likewise be done and recorded.

(B) Tuberculin testing should be a part of the school health program. In some counties it may be sponsored by the tuberculosis association. Positive reactors should have immediate chest X-ray and adequate evaluation and follow-up.

(C) Teachers are to be commended for their alertness in observing changes in the physical and emotional health of their students. When deviations are observed, these should be entered on the health record and proper referral made.

(D) Control of communicable diseases and the determination of whether or not to close a school in case of an epidemic are best handled through public health authorities. Reference should be made to the rules and regulations for the control of communicable disease issued by the Department of Public Health.

(E) Certificates for readmission to school following infections or communicable diseases are recommended. Local policies should be set up between school boards and physicians. Such policies also can relate to the management of such conditions as scabies, ringworm, and pediculosis.

III. Emergency and sudden illness.

(A) Facilities should be established for first aid and sufficient equipment made available and regularly inspected so that it will be in good condition at all times. Everyone on the school staff should have an understanding of the school's first aid policies, which should be in writing.

(B) Treatment of aches and pains through

the use of aspirin or similar drugs is to be discouraged.

(C) The first aid policies should be developed in co-operation with the medical society or its representatives. A plan should be developed, perhaps by arrangement with a nearby hospital, to provide emergency medical care in case of sudden illness or accident, when the family physician is not available.

(D) It is well for the medical profession to maintain liaison with the school engineer, custodian, traffic safety council, and school authorities to promote safety within the school, on the playground, and en route from school and home.

IV. Physical education.

(A) A physical education program should be designed to help the child improve his health through the selection of activities suited to his individual capacities. Such a program should be under the supervision of a well qualified physical education teacher.

(B) Exemption from physical education should be based upon the actual physical or emotional needs of each individual child; and should be graded as to extent of activity; and there should be a time limit on each exemption certificate.

(C) Athletic programs.

(1) It is recommended that body contact sports such as boxing and tackle football should be eliminated in elementary school.

(2) Athletes, except seniors in high school, should be limited to two major sports in any one school year.

(3) Every effort should be used to induce coaches and educate parents to reduce the pressures of tournament play.

(4) Whenever an athlete receives an injury, a full medical appraisal should be made before the athlete returns to sports.

V. Environment.

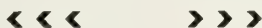
(A) The medical profession points out that environmental factors influence the emotional and mental health of the child.

(B) It is urged that school administrators select teachers who are emotionally mature and in good health.

Every medical society should make proper arrangements for care of the medically indigent so that every child can have the benefit of proper

examinations and immunizations at a cost the family can afford. How this is done should be a matter for each medical society to arrange since the most effective local program will depend on available facilities.

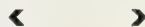
The Committee on School Health urges the co-operation of every physician and every medical society in improving our school health programs.



Salt appetite

There can be no question that a salt appetite exists both in animals and in man. The herbivores will travel great lengths to reach salt licks; the carnivores will not. The sodium content of the diet of herbivores differs from that of carnivores in having a high potassium-sodium ratio, approximating 20:1. A carnivorous diet has only about five times as much potassium as sodium. The human being who consumes an average of 10 gm. of salt daily ordinarily will have a potassium-sodium ratio of about 1:1 to 1:4. What these variations in relative potassium-sodium intake mean in terms of physiologic processes is not clear. Since there is no question that salt appetites can be induced in a variety of mammals, is there evidence that these appetites are inborn? I have found no evidence of salt craving among persons on drastically reduced intakes; many complained of the "flatness" of food taste for a few days or weeks, but thereafter this was no problem. This suggests that the salt appetite was acquired and that among hypertensives it was not a symptom of the disease and among those without hypertension, was not a physiologic response to need. Both Stefansson and Holmberg reported that among the primitive groups with which they were associated the members disliked salt initially, although they could become accustomed to it rapidly.

Thus, what evidence is available suggests that the high salt intake of western society is based upon induced appetites that are in large part the product of social custom rather than inborn appetite or physiologic need. This does not mean that the custom or appetite will be changed any more easily than that of smoking tobacco or drinking alcohol, but it seems important to indicate that salt appetite is not to be equated with salt requirement. *L. K. Dahl, M.D. Salt Intake and Salt Need. New England J. Med. June 12, 1958.*



Surface sleuth

Unlike general physicians, when we dermatologists have failed to cure our patient, we cannot hand him to the surgeons for removal of the offending organ with the confident, cheerful, and truthful assurance that he will be made worse before he is better. It often is asserted that skin patients never get better, that they never die, and that the dermatologist never gets up at night. In defense of my craft, I can only plead that we have no monopoly of incurable patients, and that their immortality must do us credit. Getting up at night we regard only as a distressing symptom needing skilled investigation; we are proud and thankful that we do not suffer from it. *R. E. Bowers, M.D. Disappointments in Dermatology. Lancet Jan. 4, 1958.*



Spontaneous Rupture of the Liver

WILLIAM E. HILL, M.D., WHEATON, JOSEPH M. MILLER, M.D., and MILTON GINSBERG, M.D., FORT HOWARD, MARYLAND

Except in the presence of primary carcinoma of the liver^{15,16,19}, spontaneous rupture of the liver is exceptional^{12,17}. In 1937, Sciacca²⁰ concluded that when the liver ruptured with minimal cause, the parenchyma probably was abnormal. A good review of the subject was made by Rademaker¹⁷, who reported one case complicating pregnancy, and 28 cases associated with 24 various diseases. More recently, Kramish, Auer, and Reckler¹² presented one patient with spontaneous rupture of the liver during pregnancy, and 13 similar cases in the literature. The diagnostic difficulties and therapeutic dilemmas occasioned by these patients were aptly illustrated in this review.

Fifty years ago it was pointed out that hemorrhage could cause spontaneous rupture of the liver²⁹. The chain of events leading to rupture consisted of infarction; hypervascularization at the periphery; rupture of a blood vessel with production of a subcapsular hematoma; and — when the pressure was great enough — rupture of the capsule of the liver^{29,30}. Recently, however, Parker³¹ reported 18 infarcts of the liver without rupture in 20,852 consecutive autopsies over a 40 year period. The infarcts were associated with diseases of the hepatic artery or its branches but involvement of the portal cir-

culatation was not essential for infarction. The infarcts usually were subcapsular and small, with the largest measuring 8 cm. by 6 cm. by 5 cm. A peripheral zone of parenchymal necrosis and a central zone of parenchymal and stromal necrosis were present. Degeneration was complete within three days. Parenchymal regeneration was not seen. In 13 of the 18 cases, infarction was due to local causes, consisting of surgical ligation of the hepatic artery in six, polyarteritis nodosa in five, and thrombosis of the hepatic artery in two instances. The remaining five infarcts were caused by emboli to the hepatic artery, associated with acute bacterial endocarditis in four and rheumatic heart disease in one instance.

The literature contains reports of spontaneous rupture of the liver associated with a great number of diseases and conditions. These include

1. Tumors: Primary carcinoma^{15,16,19}, metastatic carcinoma^{9,23}, and hemangioma^{2,26,11}.
2. Toxic infections¹⁷: Pneumonia, typhoid fever, and malaria¹⁴.
3. Chronic infections¹⁷: Tuberculous peritonitis and syphilis.
4. Physiologic states: Pregnancy¹², usually with toxemia, and in the newborn²¹.
5. Extrahepatic biliary disease^{8,17}.
6. Extreme muscular exercise and epilepsy¹⁷.

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7. Medical diseases: Periarteritis nodosa^{3,22} and diabetes mellitus²⁴.

8. Normal liver and minimal trauma^{5,17,25,27,28}.

Diagnosis of spontaneous rupture of the liver rarely is made except at the operating or the autopsy table^{17,28}. Symptoms, signs, and laboratory findings are those of peritoneal irritation in the right upper quadrant of the abdomen and concealed loss of blood^{24,28}. Pain in the right upper quadrant is almost always present; it usually is persistent and severe and may radiate inferiorly, to the back, or to either shoulder²⁸. Loss of blood results in tachycardia, fairly rapidly progressing anemia, and surgical shock, depending upon the type of damage to the liver and the rate of hemorrhage. Bradycardia may be present due to absorption of bile from the peritoneal cavity^{6,13}. The associated primary disease may be silent or may be manifested by prodromal symptoms for which the patient has not sought medical attention or is under observation or treatment. The clinical course of these patients parallels those of the three groups reported by Wright, Prigot, and Hill²⁸:

1. Massive rupture producing almost immediate death. This is rare but has been reported¹¹.
2. Acute hemorrhage producing progressive shock. This is common in spontaneous rupture^{2,18} particularly when associated with pregnancy^{12,17}.
3. Repeated small hemorrhages with gradually progressive or intermittent deterioration in condition. This is a common course in spontaneous hemorrhage from the liver^{3,8,9,22,24}.
4. Spontaneous cure. This has not been reported in spontaneous rupture of the liver so far as could be determined.

Wright, Prigot, and Hill²⁸ emphasized the great diagnostic value of aspiration in all four quadrants of the abdomen with a spinal needle. Positive results were obtained in 80 per cent of the cases with hepatic injury and false positive results were not seen. They stated that aspiration has not been dangerous in their hands.

The roentgenographic signs of rupture of the liver have been summarized by Kerekes and Ewing¹⁰. The outline of the liver is lost or distorted. Due to enlargement of the liver, the diaphragm may be elevated, the stomach displaced to the left or inferiorly, the hepatic flex-

ure of the colon displaced downward, or the right kidney displaced downward. Free bloody peritoneal fluid is present not infrequently and this may contain bile, bile salts, or liver cells²⁴. A complete or partial ileus may be found. The ruptured liver can be demonstrated roentgenologically following injection of Thorotrast²¹. This procedure is of doubtful value except in selected instances.

Early surgery, with suture of the liver, is the preferred type of treatment. In some instances, a left lobectomy may be indicated, if it is possible to do so. Packing the hepatic wound, however, may be the only solution to this vexing and often unexpected problem. A specimen of the liver should always be obtained for biopsy.

The mortality in patients with spontaneous rupture of the liver treated without operation is 85 per cent²⁴. Even after spontaneous remission following a clinically unrecognized rupture of the liver, a hematoma, an abscess, or a bile cyst may form and require elective surgical treatment or emergent operation^{4,5,7}. Operative mortality has been in excess of 60 per cent⁴, but now is estimated to be between 25 per cent and 30 per cent²⁴. In the series of Rademaker¹⁷, four of seven patients reported between 1932 and 1940 survived following surgical treatment. Specter and Chodoff²³ have reported control of hemorrhage from a tumor metastatic to the liver by partial excision of the left lobe of the liver which contained the metastasis. The neoplasm probably was primary in the right kidney. Because of the general condition of the patient, it was not deemed advisable to attack the primary lesion at that time. Roe¹⁸ resected a primary carcinoma of the liver manifested initially by rupture. At the time of celiotomy for intestinal obstruction two years later, evidence of tumor was not found. A lacerated liver associated with a perforated gall bladder was successfully treated by Hardy and Spelman⁸. Stelter and Petersen²⁴ reported surgical treatment of a spontaneous rupture of the liver with recovery in the presence of known diabetes mellitus.

The patient to be reported prompted an inquiry into the problem of spontaneous rupture of the liver. Trauma in a patient with symptoms and signs referable to the peritoneal cavity should suggest a differential diagnosis including rupture of the liver but the same symptoms and

signs, in the absence of trauma, may not suggest such a diagnosis.

A 35 year old white man was admitted to the medical service on March 26, 1953, with a chief complaint of a severe degree of pain in the right upper quadrant of the abdomen of about 16 hours' duration. Pain radiated to the right lower quadrant. Nausea and vomiting had not occurred. A mild degree of discomfort in the lower thorax and in the epigastrium had been present for about two weeks.

The patient was well developed and obese. The skin was pale and slightly damp. Neither skin nor sclerae showed abnormal pigmentation. The blood pressure was 140/85. He had slight intestinal distention and a moderate tenderness and rigidity in the upper quadrant of the abdomen. A mild degree of tenderness was referred from the right lower quadrant to the right upper quadrant.

The hemoglobin was 11.0 grams per 100 cc.; the red blood cell count 4,050,000; and the white count was 8,300 of which 64 per cent were polymorphonuclear neutrophilic leukocytes, 1 per cent polymorphonuclear eosinophilic leukocytes, and 35 per cent lymphocytes. Urinalysis, including a test for urobilinogen, was normal except for a trace of albumin. The direct van den Bergh test was negative and the indirect van den Bergh test was 0.9 mg. per 100 cc. The alkaline phosphatase was 11.9 modified Bodansky units per 100 cc. The serum amylase was 20 Somogyi units per 100 cc. Roentgenogram of the abdomen showed enlargement of the right kidney. Electrocardiogram revealed tachycardia.

The patient was seen on March 26 by the consultant in surgery who made a diagnosis of acute cholecystitis and advised a conservative course of treatment. On March 27, pain in the right upper quadrant of the abdomen was somewhat more severe and a mass was felt there. The patient was transferred to the surgical service on March 27. A moderate degree of swelling of the legs noted on March 28 led to diagnosis of phlebothrombosis. The patient said that he felt much better on March 29 and would like to eat. Swelling in the legs had not changed on March 30. The icteric index was 44.0 units per 100 cc. The prothrombin time was 10.2 seconds with a control of 14.2 seconds on March 31. Abdominal examination was about the same on April 1. On

April 2, the patient became pale, apprehensive, and seriously ill. A small amount of free fluid was present in the peritoneal cavity. The hemoglobin was 11.0 grams per 100 cc., the red blood cell count 4,380,000 and the white blood cell count 27,000 of which 84 per cent were polymorphonuclear neutrophilic leukocytes and 16 per cent lymphocytes. The prothrombin time was 28.4 seconds with a control of 14.4 seconds.

The preoperative diagnosis was acute cholecystitis. Confirmatory findings included pain and its location, rapid pulse rate, rising white blood cell count with increasing polymorphonuclear neutrophilic leukocyte count, and the onset of jaundice. Lack of an elevation of temperature commensurate with the clinical severity of the apparent acute cholecystitis could not be explained. Blood pressure, hemoglobin, and red blood cell count had not changed. The diagnostic problem was solved by operation.

The abdomen was explored through a right subcostal incision on April 2. About 900 cc. of blood were aspirated from the peritoneal cavity. The liver was enlarged to about four times the normal size and extended to about six cm. below the right costal margin. The liver was bluish-brown and rubbery. It did not contain nodules. A laceration about eight cm. in length was present on the under surface of the right lobe and a second about one cm. in length in the left. A piece of the liver was removed for biopsy. Gelfoam® was placed in the laceration in the right lobe of the liver and a pack of gauze inserted and brought externally.

On microscopic examination, much of the liver was replaced by a solid growth of rather uniformly appearing malignant mole cells which contained a small amount of pigment. Mitotic figures were seen frequently. There was much accumulation of fat in the central portion of the lobules. All the liver cells contained an increased amount of pentose nucleic acid. Hyaline body formation, hyaline necrotic cells, and slight brownish pigmentation of the Kupffer cells were present. Diagnosis was a malignant pigmented mole metastatic to the liver.

The general condition of the patient became worse after operation in spite of the administration of multiple transfusions of citrated whole blood and Arterenol.® The patient died April 3.

Autopsy was limited to the abdominal cavity.

About 1,000 cc. of unclotted and clotted blood were present in the peritoneal cavity. The capsule of the liver was tense with multiple lacerations in the right and the left lobes, the longest being about eight cm. in length. Nodules were not present. The liver weighed about 5,560 grams. The cut section was bluish-brown. The entire organ was infiltrated homogeneously by the tumor. The hepatic, cystic, and common ducts were patent. The gall bladder had a thin wall and did not contain bile or calculi. The spleen had a nodular surface and weighed about 480 grams. On cut section the nodules were bluish-brown and varied from two cm. in diameter. The remainder of the abdominal viscera were normal.

COMMENT

The initial pain experienced by the patient was probably due to enlargement of the liver and stretching of the capsule. Hemorrhage from metastases of the malignant pigmented mole in the liver produced the symptoms and signs associated with the great change in the condition of the patient. It is unfortunate that an examination of fundi oculi was not done since the primary site of the tumor might have been found in one of these sites.

SUMMARY

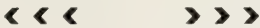
The etiologic factors, clinical picture, and prognosis in rupture of the liver are discussed. The details are given of a patient who had spontaneous rupture of the liver containing metastatic malignant pigmented mole.

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Toxic Psychosis

Due to a Hyoscine Compound

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This report deals with a transient, pseudo-schizophrenic, toxic reaction due to hyoscine aminoxide hydrobromide. The significance of this report rests in the fact that the drug believed to have caused such a reaction is sold in drug stores without prescription, and is advertised as a preventive for car sickness, to be taken safely by adults and children alike.

Case History: A 10 year old white male was brought to the emergency room of Mt. Sinai Hospital, Chicago, by his parents. They were concerned by his bizarre behavior which had developed over the 12 previous hours while visiting relatives in the country. The onset was sudden. The parents stated that he began to utter silly remarks and say goofy things, such as that his cousin was after him with a gun in his hand. At times he appeared to be terrified and at other times, would laugh without apparent reason. He also reported having seen jet planes flying in the dining room. At bedtime he was unable to fall asleep, talked about seeing little animals, believed he was in church, and walked around the house talking and laughing and asking for water to drink. The parents cut short their week-end plans and brought him to the hospital at four o'clock in the morning.

On examination, the patient was found to be confused. His moods swung from elation with inappropriate laughter to hostile or indifferent attitudes toward his surroundings. He showed disconnected speech and picked on his own and the examiner's clothing. (Behavior similar to that exhibited by patients in uremic and other toxic confusional states.) He mentioned little animals, described visual and auditory hallucina-

tions, and carried on a fragmentary conversation with an absent cousin. Patient was disoriented as to time, place, and person. Significant physical findings were: dry skin, flushed face, dry buccal mucosa. Heart rate was 120/min., respiration 28/min., blood pressure 120/85. Neurological examination was essentially negative except for greatly dilated pupils that reacted only slightly to light and convergence. With such symptoms, an atropine-like poisoning was suspected. Information was elicited from the parents that the patient invariably suffered from car sickness whenever he went on a long automobile trip. As a rule he was given Dramamine® before departure. On this occasion the customary drug was not available and the patient was given half a capsule of Tripamine® upon the druggist's advice. Two hours later bizarre behavior was first noticed.

The patient was hospitalized for observation. On the ward he continued to exhibit motor excitement, played with imaginary toys, believed he was in an airplane, and addressed the nurses as stewardess. At times he would call them sister, and believed that his gown's strings were his rosary. The examiner was addressed as Father. He was placed under sedation (sodium amytal gr. ii every four hours) which failed to have any effect upon motor and mental excitement. Laboratory findings were essentially negative. They included urinalysis, CBC, F.T., glucose, serum urea, Co₂, comb. power, serum sodium, potassium, chlorides.

These disturbances of mood, thought, and behavior disappeared 14 hours after admission (26 after onset). He had some recollection of the onset of his confusional state. He was able to recall not being able to see well — he had blurred vision and bumped into things — and that he was very thirsty. He also wondered about his being in the hospital and expressed the desire to go home. He reacted with some concern

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about a young female schizophrenic patient in the ward who assumed an overprotective maternal attitude toward him.

Psychological testing was performed 36 hours after the disappearance of symptoms. The report reads as follows: "When examined the patient was alert, co-operative, and personable. The Wechsler Scale for Children, Bender gestalt, House-Tree-Person Test, Rorschach, and Thematic Appreciation Test were given. In none of these tests was there any evidence of any personality disorder of functional or organic type. Intellectual functions and affect were entirely within normal limits."

Both parents were interviewed separately in order to determine the patient's life history, emotional development, and social adjustment immediately prior to his psychotic episode. Information obtained failed to reveal any disturbance or maladaptations in adjustment. He had an uneventful, benign, normal life history. The patient was discharged, fully recovered, 70 hours after admission.

COMMENTS

The drug believed to have caused the psychotic reaction in this case is hyoscyne aminoxide hydrobromide, a synthetic scopolamine derivative. Together with atropine, scopolamine is described by Goodman¹ as one of the important alkaloids found in the belladonna plants, chiefly in the shrubs, *Hyoscyamus niger*, and *Scopola carniolica*. Atropine and scopolamine are two of the most important drugs of the bella group, from the standpoint of poisoning. Unna et al.² describes infants and children as particularly susceptible to atropine and fatalities have been reported due to this drug by Morton³. Hughes and Clark⁴ reported probably the first cases to be described in the Americas as early as 1676, giving a detailed account of symptoms. Some authors believe that disturbances of mood, thought, and behavior are more commonly found

with the use of scopolamine. Ford⁵ claims that mentally defective children are subject to particularly severe reactions on intake of the belladonna alkaloids, although these reactions may be found also in normal children.

In this case, the patient received one half of a capsule of Tripamine which contains hyoscyne aminoxide hydrobromide. He therefore was given 0.5 mg. of the drug on the advice of the pharmacist, a full capsule being recommended as the adult dosage on the printed label. Sensitivity to the drug may account for the severe reaction in this case. Atropine and scopolamine do not differ much in respect to symptoms of the toxic psychosis they produce. It is said that a scopolamine toxic psychosis is followed by a depressive picture more often whereas a psychotic reaction is produced by atropine. In our case, after psychotic symptoms disappeared no depressive clinical picture was found. The only complaints which the patient expressed, and these for only a few hours, were of thirst and blurred vision.

Comparing the psychotic picture of our patient with reports of experimentally induced psychoses using D-lysergic acid, one finds some difference. Auditory and visual hallucinations were present, but they were not bizarre and kaleidoscopically full of color as in the D-lysergic acid psychosis. On the other hand, in this type of psychosis, Macdonald and Galvin⁶ describe a low incidence of auditory hallucinations. In our case auditory hallucinations formed a prominent part of the psychotic picture.

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A Gastrointestinal Problem

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FIRST ADMISSION (Sept. 1957): A 21 year old white male attendant entered the hospital because of epigastric pain of six months' duration. It usually occurred just before or after meals and lasted from five to 10 minutes. Recently the pain was not related to meals and occasionally awakened him at night. For two months he had had a temperature of 101° to 102° F., and had noted bilateral lumbar pain, frequency, and nocturia (1-2X). During his illness he lost 10 pounds. Roentgen examination on two occasions revealed no abnormality of the gall bladder, or upper and lower gastrointestinal tract.

Past history: Appendectomy at age 5; non-paralytic polio at age 7; tonsillectomy and adenoidectomy at age 11, and hemorrhoidectomy at age 16. Asthma and allergy to pollens, molds, wool, and feathers.

Physical examination: Temperature 98.2°, pulse 80, respirations 16, blood pressure 100/60, height 5'5", weight 102 pounds. He was not in acute distress. The head, neck, and thorax were not unusual. The abdomen was symmetrical without palpable organs or masses. The Murphy percussion sign was positive bilaterally.

Laboratory examination: Urine: Specific gravity 1.017, alkaline, 20 mg. albumin, 5-10 red blood cells and 10-14 white blood cells per high power field; culture — *Streptococcus fecalis* and *E. coli*. Blood: 40% hematocrit, white count 9,800, differential—72 neutrophils, 16 lymphocytes, 4 monocytes, 1 basophil, 7 eosinophils, sedimentation rate 27 mm. per hour, NPN 25. Stools: negative for blood, ova, and parasites. Roentgen examination of chest and intravenous urograms showed no abnormality.

Hospital course: His temperature fluctuated between 99 and 100° F., and pulse between 80-100. Urologic consultation revealed: Prostate of normal size, prostatic fluid with small clumps of leucocytes, urethral meatus of small size. Urethral meotomy was done and cystoscopic examination revealed an edematous papillary lesion on the posterior bladder wall. Biopsy was done and microscopic examination showed organizing acute inflammation of mucous membrane. The growth of *E. coli* cultured from the urine was inhibited by chloramphenicol. The patient was given chloromycetin and after being afebrile for three days, was discharged on the 10th hospital day.

SECOND ADMISSION (Oct. 1957): He was re-admitted to the hospital because of persistence of abdominal pain and urinary symptoms. Abdominal pains increased in frequency,

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occurred five minutes before meals, became worse after eating, and lasted two hours after meals.

Physical examination: Temperature 99.8° F., pulse 100, respirations 18, blood pressure 100/64, weight 102 lbs. Examination of the abdomen revealed muscle guarding, but no localized tenderness, palpable organs, or masses.

Laboratory examination: Urine: 80 mg. albumin, numerous leucocytes, nonhemolytic streptococcus. Roentgen examination of upper gastrointestinal tract and colon showed no abnormality.

Hospital course: Cystoscopy again revealed an edematous papillary lesion on the posterior bladder wall. The surgical report of tissue obtained at biopsy was inflammatory polyp of mucous membrane. Rectal examination with the patient under general anesthesia revealed a palpable mass in the lower abdomen. Proctoscopic examination on the following day revealed bloody gelatinous material in the rectum which was apparently coming from above the level of the sigmoid colon. The temperature occasionally reached 100.2° F. On the 6th hospital day a surgical consultant noted that the abdomen was tense and slightly distended without localized soreness or masses and a firm mass above the prostate on digital rectal examination. Surgery was performed on the 9th hospital day.

CLINICAL DISCUSSION

Dr. Arthur E. Mahle:* The case today is that of a 21 year old white male with an illness of about eight months' duration. The important facts in the history and physical examination are as follows: Chills and fever, abdominal pain with meals, pyuria and dysuria, weight loss of 10 pounds, negative gastrointestinal X-rays, and negative I-V pyelogram, muscle guarding without abdominal tenderness. On his second hospital admission a mass was found in the lower abdomen as well as an inflammatory lesion of the urinary bladder, and bloody mucoid material in colon. Dr. Cannon, would you discuss the X-ray findings?

Dr. Abram H. Cannon: Roentgen examinations on the first admission showed a normal chest and normal intravenous pyelograms with visualization of renal pelves and urinary bladder. On the second admission, upper gastroin-

testinal tract and colon were considered normal.

Dr. Mahle: Is there a mass in the region of the terminal ileum?

Dr. Cannon: Not that can be seen on any of the films. In the barium enema the cecum is slightly irregular but in the air contrast study the entire colon, cecum, and terminal ileum are not unusual.

Dr. Mahle: Is there any retained barium in the ileum?

Dr. Cannon: No, only a small amount in the cecum and sigmoid colon.

Dr. Kenneth Sokol: In the film taken after voiding, is there an irregularity of the bladder?

Dr. Cannon: Very doubtful. I would consider the bladder within average limits.

Dr. Mahle: The differential diagnosis should include carcinoma, carcinoid, tuberculosis, diverticulitis, amebiasis, actinomycosis, appendicitis with abscess formation, volvulus, ulcerative colitis, and regional ileitis. Because of his age it seems logical to conclude that he had only one disease which affected both his intestinal and urinary systems; thus in all probability a fistulous communication existed between some portion of the intestine and the urinary bladder.

Carcinoma must always be considered in the presence of an abdominal mass but I think in a patient this age, it is sufficiently unlikely to be only mentioned.

Carcinoids are tumors that may affect any portion of the gastrointestinal tract but are most numerous in the appendix and ileum. The tumors may involve adjacent tissue and cause intestinal obstruction but involvement of the urinary bladder is certainly uncommon. I, therefore, think this diagnosis improbable.

One of the granulomatous infections such as tuberculosis, actinomycosis, or amebiasis could involve intestine and urinary bladder. These not infrequently result in fistulas. No specific information is available to support either condition and I would tend to exclude them as unlikely.

Inflammation of the appendix with abscess and fistula formation, I will exclude because of the history of appendectomy at age 5.

Volvulus can be mentioned but seems improbable in the absence of signs of obstruction

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and because of the relative long duration of the patient's illness.

Diverticulitis with vesicocolic fistula formation is a distinct possibility. Diverticula are most common in the left half but may occur in any portion of the colon. The incidence in various parts is: pelvic colon, 39%; left half, 47%; ascending, 4%; right half, 1.5%; transverse, 1.5%; rectum, 1.5%; entire colon, 5.5%. The reported incidence of diverticulitis in patients with diverticula varies from 25% to as low as 3%. All facts considered, I cannot exclude a diagnosis of diverticulitis with fistula formation.

Ulcerative colitis is another condition of the colon that must be considered in a patient in this age group. In this disease the patients usually have diarrhea, crampy abdominal pain, weight loss and sometimes nausea, vomiting, chills, and fever. Fistula formation occurs but is not common. I do not favor a diagnosis of ulcerative colitis in this patient because of the absence of diarrhea and lack of X-ray and proctoscopic findings.

Finally, I would like to discuss the condition I consider most likely in this patient — i.e., regional enteritis. This condition is more common in males than females and in most instances (75%) occurs between 20-40 years of age. Abdominal pain and fever are common. Diarrhea is less frequent than in some of the other disorders considered. Fistula and abscess formation are complications in 30-50% of cases. I think, therefore, this patient has regional enteritis with a fistulous communication between the intestine and urinary bladder.

Dr. Ralph Roberts: Is there any history of the patient's having passed gas through the penis?

Dr. T. C. Laipply: No.

Dr. J. Farmer: Was a Mantoux test done?

Dr. Laipply: None recorded.

Dr. G. Keverian: Are the symptoms compatible with gastric disease?

Dr. Mahle: I usually suspect the colon rather than the stomach if pain is brought on by eating. I do not think his disease is gastric.

Dr. James Johnson: What is the mass? An abscess?

Dr. Mahle: If the diagnosis of regional enteritis is correct it should be an abnormal portion of bowel, probably ileum.

Dr. Sokol: How about the possibility of a Meckel's diverticulum?

Dr. Mahle: I don't consider it likely but can't absolutely exclude it.

Dr. Paul Rhoads: I have great difficulty excluding an infectious granuloma of genitourinary and gastrointestinal tracts. In my experience, most of the patients with regional enteritis have had more diarrhea.

Dr. Frederic Lestina: I would favor a perirectal abscess and rectovesical fistula secondary to diverticulitis.

Dr. Frederick Munson: Is there a good urologic test for pneumaturia?

Dr. Sokol: Yes, void under water and watch for bubbles. Often the patients will volunteer that they have been passing gas when urinating.

Dr. Rhoads: Does Dr. Mahle think there was a fistula?

Dr. Mahle: I am not sure.

Dr. Laipply: Would our urologist miss seeing a fistulous opening on cystoscopic examination?

Dr. Sokol: Not likely, but there are times when even our careful examinations do not demonstrate lesions.

Dr. Laipply: Would not fecal material and gas be greater in amount in fistulas secondary to diverticulitis of the colon than in those associated with regional enteritis?

Dr. Munson: I think the answer is yes, because the fistulous tract is shorter and less tortuous in most cases with fistula secondary to diverticulitis as compared to those associated with regional enteritis.

PRE-OPERATIVE CLINICAL DIAGNOSES

Regional ileitis

Cystitis

DR. MAHLE'S DIAGNOSIS

Regional enteritis with involvement of bladder wall.

ANATOMIC DIAGNOSES

Regional ileitis with fistula formation, acute and chronic cystitis, and focal granulomatous mesenteric lymphadenitis.

PATHOLOGICAL DISCUSSION

Dr. Laipply: The surgical specimen consisted of a portion of ileum, cecum, ascending colon, and mesentery. Present were 36 cm. of ileum, the distal 77 cm. of which were abnormal, with a thickened wall and narrowed lumen. The proxi-

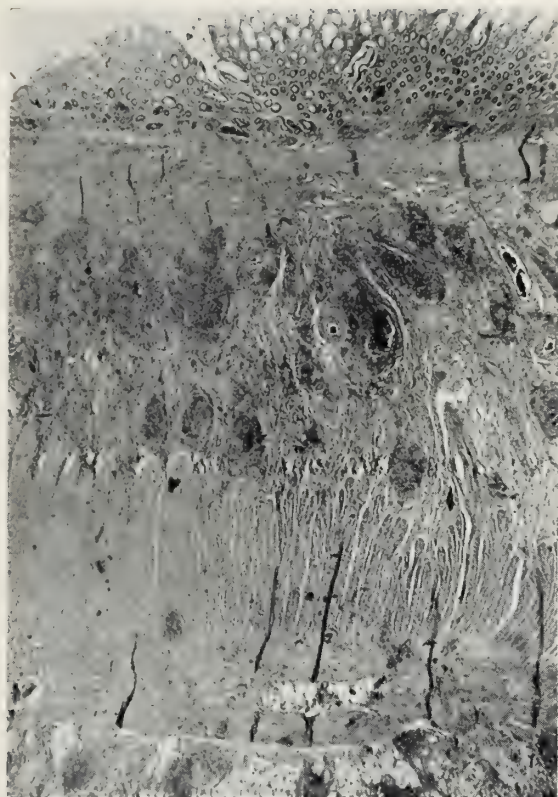


Figure 1. Photomicrograph of portion of ileum showing lymphoid hyperplasia with lymph follicle formation in submucosa, muscularis, and mesenteric fat. (X 30)

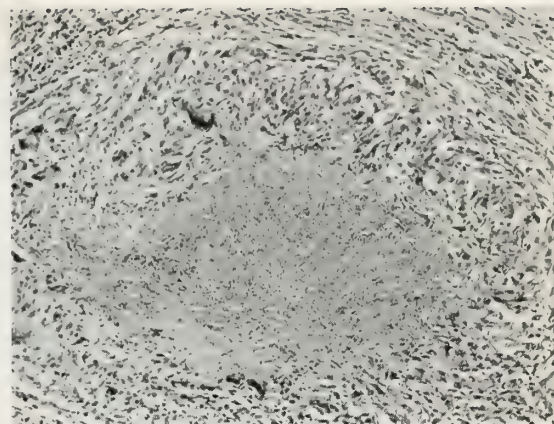


Figure 2. Photomicrograph of section of ileum showing granuloma with necrosis, epithelioid cells, and Langhans giant cells. (X 110)

mal 25 cm. of ileum, cecum, 10 cm. of ascending colon, and mesenteric lymph nodes were grossly normal. The mesenteric fat attached to the abnormal portion of ileum was discolored reddish gray and firmer than usual. The distal portion of ileum showed extensive mucosal ulceration, a thickened fibrotic wall measuring from 0.4 to 1.4 cm. in thickness, a lumen decreased from 2.5 to 1.2 cm. in diameter, and a fistulous tract 0.3 cm. in diameter extending through the intestinal wall and mesenteric fat. The fistula had its proximal opening in the ileum 5 cm. and its distal opening 8 cm. from the ileocecal valve. No portion of urinary tract was included but in view of the clinical signs and symptoms there is little

doubt that the fistula extended into the urinary bladder.

The microscopic changes in the ileum, mesenteric fat, and lymph nodes were those of active, acute, and chronic granulomatous inflammation characteristic of regional enteritis. The ileum showed marked fibrosis, hyperplasia of lymphoid tissue (lymph follicle formation), ulceration, and intramural abscess formation. Lymph follicles were present in all portions of the intestinal wall and mesenteric fat (Figure 1). Granulomatous foci were demonstrated in the muscularis of the ileum (Figure 2) and in mesenteric lymph nodes.

Studies in our department of the anatomic changes in regional enteritis have shown changes as follows: mucosal ulceration, 100%; lymphoid hyperplasia, 100%; stenosis, 87%; granulomas, 84%; lymphatic dilatation, 78%; edema of submucosa, 74%; intramural abscesses, 19%; and fistulas, 16%.

The approximate incidence of clinical signs and symptoms in regional enteritis is as follows: diarrhea, 74%; abdominal pain, 67%; loss of weight, 63%; fever, 37%; melena, 16%; abdominal mass, 31%; fistula, 50%; ileovesical fistula, 4.5%.

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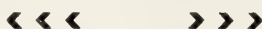
Hungarian revolution

The physical dislocation and emotional release associated with the revolution and subsequent flight was accompanied by an improvement in the general health and well being of the informants, and a decrease in their illness episode rate. However, there is reason to believe that many of them, as they attempt to adapt to a new life in this country, will experience a temporary resurgence in the amount of illness they exhibit, until they have made a satisfactory adjustment to their new life situation.

Among these Hungarians, as among the members of other groups we have studied, individuals differed markedly in their general susceptibility to illness, those having the greater number of illness episodes experiencing the greater number of different types of illness, involving a greater number of their organ systems, and falling into a greater number of "causal" categories. The

more frequently ill people also were those who had experienced the greater number of disturbances of mood, thought, and behavior.

This feature of the "frequently ill" person also has been observed among Americans of diverse backgrounds, and among Chinese. We believe this to be a finding of considerable scientific significance, because it suggests to us that the way a person perceives his situation in life, and his relation to the people and events around him, leads to physiological reactions within him that influence not just special kinds of illness but illness of all sorts. A man's relation to his social and interpersonal environment thus seems to be an extremely important determinant of his health and seems to have a profound effect upon the onset and course of a great variety of illnesses. *L. E. Hinkle, Jr., M.D. Health, Human Ecology, and the Hungarian Revolution. Rhode Island M.J. May 1958.*



Otosclerotic deafness

One hundred fifty-two stapes mobilization operations were performed from January, 1956 to September, 1957 and have been followed from one to 20 months. There have been 82 immediately successful cases, or 54 per cent. Success was determined by restoration of hearing to the serviceable level of an average of 30 decibels of loss or less in the conversational range of 500, 1,000, and 2,000 cycles, or by achieving hearing within 10 decibels of the bone conduction level where the bone conduction curve precluded improvement to a serviceable level. The later group achieved 20 decibels or more improvement. Those patients whose bone conduction curve indicated a possibility of achieving serviceability but did not do so are not included, even though some had considerable improvement.

There has been loss of early improvement in hearing in four cases and of these, one revision

has been performed and serviceable hearing was achieved. One revision was performed on a previous failure with successful mobilization and restoration of good hearing.

Four patients have had vertigo lasting for two to four days with no loss of the operative gain. There was one case of external otitis which responded easily to treatment. Some patients have had a loss of taste sensation of half of the tongue on the operated side. Taste usually returns in a few months. Two of the unsuccessful cases had 10 decibels additional loss of hearing but in neither did it add to the already existing practical disability.

There were no cases of facial paralysis, permanent perforation of the tympanic membrane, or loss of hearing from labyrinthitis. There was no otitis media. *G. D. Straus, M.D. Stapes Mobilization for Otosclerotic Deafness. Wisconsin M. J. May 1958.*

EDITORIALS



Glaucoma

A marked change in the ophthalmologist's concept of glaucoma has occurred during the past decade, which has brought about improvement in both the medical and surgical prognosis of the disease. Great benefit has resulted from the widespread recognition of two types of primary glaucoma: the angle-closure type and the open-angle, or simple, type. The angle-closure type in years past has been known by various terms such as acute glaucoma, congestive glaucoma, and uncompensated glaucoma. This condition is believed to arise from an anatomic predisposition in which the iris-lens diaphragm is abnormally close to the cornea. Between attacks, eye tension is normal and the only physical finding is a shallow anterior chamber. Under the influence of a variety of causes there may be forward displacement of this diaphragm, blocking the flow of fluid from the angle of the anterior chamber. If the attack is not relieved, the eye may go on to blindness.

During an acute increase in intraocular pressure, adhesions — called anterior peripheral synechiae—develop between the iris and the posterior surface of the cornea. Frequently, these synechiae persist even though the attack is relieved, and are one of the characteristics that indicate the eye has had previous attacks. Thus, their recognition aids in diagnosis of this type of glaucoma in an interval when pressure is normal.

Angle-closure glaucoma may be cured surgically by means of peripheral iridectomy that eliminates the pressure differential between the posterior chamber and the anterior chamber, and causes the iris-lens diaphragm to recede so that the anterior chamber is deeper.

In simple, or open-angle, glaucoma (compensated, chronic, noncongestive), there is no obvious anatomic defect. Intraocular pressure increases gradually, usually without symptoms but associated with marked loss of visual function. The defect resides in the trabeculum and apparently is a connective tissue change interfering with the free flow of fluid between the anterior chamber and the canal of Schlemm. In recent years the tendency has been to treat simple glaucoma conservatively and to reserve surgery only for those cases in which medical management is grossly unsatisfactory.

The distinction between the two types of primary glaucoma must be made by using a gonioscopic device to permit observation of the corneoscleral angle located beneath the opaque limbus. This technique was largely of research interest 10 years ago but a number of new devices have been designed that are easily manipulated, so that the examination has become routine.

Intraocular pressure is measured by means of a tonometer, which is calibrated in terms of the amount of indentation of the eye. The indenta-

tion is proportionate to the pressure. The weight of the tonometer upon the eye causes falling of intraocular pressure and—by allowing the tonometer to rest upon the eye and knowing the amount of indentation at the beginning and at the end of the period—it is possible to calculate how much fluid was forced from the eye during the time the tonometer was on the eye. This examination, known as tonography, is largely of research interest but has been extremely valuable in determining the efficacy of medical treatment and in locating the site of the defect in outflow in glaucoma.

These findings have been largely confirmed by perfusion of enucleated human eyes. Tonography also has been instrumental in indicating the mode of action of acetazolamide (Diamox®) in reducing secretion of the ciliary body. Diamox has become one of the most valuable drugs in the control of glaucoma, particularly secondary glaucomas due to inflammation, trauma, and the like, as well as angle-closure glaucoma. Despite a great many studies and widespread use, its mode of action remains obscure.

Surgically, the prognosis in infantile glaucoma [buphthalmos] has been much improved by the use of goniotomy, in which the angle of the anterior chamber is stripped, usually by direct vision through a contact lens. The procedure is relatively nontraumatic and may be repeated if it is not initially effective.

In the research laboratories, exquisite studies are in progress indicating a central control of intraocular pressure independent of the composition of the plasma and the blood pressure. Other studies are directed toward the chemistry of the tissues of the angle, the enzymology of the iris and ciliary body in glaucoma, new drugs, and the physiology of the homeostasis of the intraocular pressure. There is every hope that this bete noire of ophthalmology may be understood soon.

Frank W. Newell, M.D.,
Chairman, Section of
Ophthalmology,
The University of Chicago.

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Rare

The clinical diagnosis of coronary embolism has been made and reported four times in the literature.

Luminous watches

Dr. J. L. Haybittle* wrote: "I have recently measured the gamma ray emission from a modern shockproof, self-winding watch and estimate that it contains 2.2 microcuries of radium. Measurements on eight other watches collected from colleagues revealed contents ranging from 0.01 to 1.2 microcuries with a mean of about one-quarter of a microcurie. Although the figure used by the Committee may be substantially correct, there exist watches containing at least ten times this average amount of radium. Should such watches become more popular with the public, then luminous watches would be second only to diagnostic radiology in the amount of radiation they contribute to the gonads."

Dr. Haybittle is not overly concerned, but he believes his observations ought not to be dismissed as worthless. Assuming that such watches contain 2.2 microcuries and are worn 16 hours a day, the skin receives 0.9 roentgen per week, nearly two-thirds of the present maximum permissible level for exposure to limited parts of the body such as hands and arms. There is no great need for luminous watches in our modern society. They merely add to the miscellaneous sources of radiation, such as X-ray machines used for shoe-fitting and television. While our radiation levels are far below the estimated limits of safety at this time, it behooves us to consider all sources and decrease exposure wherever possible.

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Secretaries conference in Springfield, Oct. 26

The annual Secretaries Conference of the Illinois State Medical Society will be held in the Leland Hotel, Springfield, Sunday, October 26. The meeting will begin at 10 o'clock and after luncheon continue throughout the afternoon.

There will be talks on the new coroner's law, Medicare, the World Medical Association, recent AMA activities, organizational problems, legislative programs, and other subjects. A detailed program will be mailed to county medical society officers, PR and Legislative committee chairmen, and others.

Wives of attending physicians will be provided

*Nature, May 17, 1958.

buses in the afternoon for a visit to New Salem. Michigan State will be the visiting team at the Illinois homecoming on the day before.

Dr. Newton DuPuy, Quincy, is chairman of the conference; Dr. George C. Turner, Chicago, vice chairman, and Dr. E. F. Moore, Collinsville, secretary.

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Nominations for G.P. of year should be submitted

County medical societies should submit their nominations for the Illinois General Practitioner of the Year at once. The successful candidate will be entered as a nominee for the national honor, to be voted by the American Medical Association in December.

Entries should include as complete information as possible on the service rendered by the candidate to his patients, his community, and his medical society. A brochure containing a life history, including pictures, citations, and news items is most helpful. This information should be sent immediately to Dr. Harold M. Camp, secretary, Illinois State Medical Society, Monmouth.

The selection will be made by a committee, the makeup of which is not published.

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Polio-Arthritis feud detrimental to medicine

The feud that has broken out between the National Foundation for Infantile Paralysis and the Arthritis and Rheumatism Foundation will have an adverse effect on medical research and public relations. More importantly, it could delay arrival of the day of greater hope for the 11 million sufferers from rheumatism or arthritis.

Many people in this country who have been contributing toward medical research are getting tired of being approached for donations to a wide variety of individual disease funds. The situation will be aggravated when they are bombarded by literature and bothered by solicitors from two organizations competing for dollars in the same field. It will become much easier for a person to turn down requests from both by saying: "I have contributed to the other."

There is another disadvantage in two big organizations competing for dollars that will be

available for arthritis and rheumatism research. Both will find it necessary to conduct more aggressive fund raising campaigns. It is doubtful whether the contributions will show a commensurate increase, but certainly this duplication of efforts will make the cost of raising money much higher. Thus, the purposes of the foundations will suffer.

The National Foundation for Infantile Paralysis has done noble work in the battle against polio and deserves an accolade. Its work in that field, however, has not been completed. Much more is to be done.

Perhaps to do so, NFIP finds there is no longer a need for such a huge administrative and operating organization as has been built up over the last 20 years. But this setup should not be maintained at the expense of progress in medical science or to the detriment of public support of medical research at the grass roots level. Many people will be of the opinion that the real reason for the polio organization's going into a big field that is being effectively covered by the Arthritis and Rheumatism Foundation is perpetuation of its payroll. Denials by NFIP will not change these views, especially since the move was made after merger negotiations had broken down.

It would have been better for all concerned if the two organizations had combined their efforts. Many economies could have resulted, and medical research spurred. The hitch came when individual chapters of the ARF rejected a consolidation plan agreed to at the top level. Opposition was based on the failure of the plan to provide a guarantee of maintenance of the Arthritis Foundation's present program.

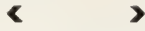
When this developed, it would seem that the best interests of the victims of arthritis and rheumatism would have been served if NFIP had refrained from going into the new field until the differences could be ironed out satisfactorily. Unfortunately, it put into action its alternate plan to compete not only in the ARF's territory but in the fields of disorders of the central nervous system and birth defects.

There is another threat in this picture. In adopting the name of National Foundation to replace National Foundation for Infantile Paralysis, the way was paved for the establishment of a super voluntary health organization that in time might gobble up every important foundation engaged in medical research. Nothing could

be more detrimental to the future of medicine. Some facts of research would be favored over others.

For the good of the voluntary health organization movement, the National Foundation should refrain from going ahead with its announced plans. It could become too big for its britches.

John A. Mirt



State Medical Society joins in nutrition meeting

The Committee on Nutrition of the Illinois State Medical Society will join with the Illinois Nutrition Committee in the sponsorship of a nutrition conference to be held at the University of Illinois, Urbana, October 4.

The program follows:

- 8:45 Registration, Bevier Hall. Adults \$1.50; students 75c. Coffee in lounge.
- 9:30 Morning session—Geraldine Acker, chairman of Illinois Nutrition Committee, presiding.
Greetings: Louis B. Howard, Ph.D., dean of the College of Agriculture, University of Illinois.
“Sodium and Hypertension.”
J. B. Youmans, M.D., College of Medicine, Vanderbilt University.
“Protein in Human Nutrition.”
B. S. Schweigert, Ph.D., director of research and education, American Meat Institute Foundation.
- 12:15 Luncheon—University Club.
Introduction of guests.
- 2:00 Afternoon session—Paul A. Dailey, M.D., chairman of the Committee on Nutrition, Illinois State Medical Society, presiding.
“Some Target Areas in Nutrition.”
H. H. Alp, director of market development, American Farm Bureau Federation.
“Teamwork for Better Nutrition.” (Panel)
Moderator: J. B. Youmans, M.D.
Harlan English, M.D., councilor, Illinois State Medical Society.
Harriet Barto, associate professor of dietetics, University of Illinois.
Beulah Hunzicker, associate professor of foods, University of Illinois.
Anna C. Wilson, writer on nutrition, Today’s Health.

The Illinois Nutrition Committee was organized late in 1940 as part of the national movement stimulated by the Association of Land-Grant Colleges and Universities. Its program includes the development of a sound nutrition program in Illinois through schools, industries, community organizations, and other means.

Judicial amendment goal is court modernization

The Illinois State Medical Society has joined leading civic, business, farm, labor, and professional organizations in the state in supporting the Blue Ballot Judicial Amendment. The proposed amendment, which will modernize Illinois’ court system, will be submitted to the voters at the November 4 general election.

The Society’s support of this amendment is rooted in the conviction that court modernization is vital to the people of Illinois. Except for ineffective patchwork attempts to keep up with changing times, our court system today is virtually the same as it was the day of its creation in 1848. Since then, a tenfold increase in Illinois’ population has rendered our court system completely unable to handle today’s problems. There are many urban areas, for example, where delays—sometimes lasting many years—prevent the average citizen from getting a court hearing. In rural areas, absence of the Circuit Court judge can cause a wait of several months for trial. The solution lies in the proper administration and supervision of our court system and this is provided for in the proposed amendment.

Court handling of family problems throughout the State also is chaotic. Delinquency, dependency, and divorce are aggravated by the confusion of the court structure. In certain areas of Illinois, a family squabble can snowball into a series of actions in eight different courts. There is no single, effective way for the present court system to solve domestic problems in their initial stages. The proposed amendment makes possible the creation of a single branch of the Circuit Court designed especially to deal with all matters relating to the family. Such a branch, properly staffed, will help end the confusion that now leads to the social mutilation of children.

Another reason for the Society’s endorsement of the amendment is that it eliminates the fee system. At present, most justices of the peace and police magistrates get paid only when they return a verdict of guilty. The amendment abolishes this system but, at the same time, it enables competent justices of the peace and police magistrates to continue to serve their communities on a salary basis and, with proper supervision, as magistrates of the Circuit Court.

Adoption of the amendment requires a “Yes”

vote by two-thirds of those voting on the issue or by a majority of those voting at the election. As a result, every vote is important.

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Editorials from other journals—

How big is too big?

As the national volume of research increases and as we experience a mounting rate of increase, a number of research organizations are growing or may already have grown to such dimensions that one is bound to inquire: How big is too big?

There is no tidy or universal answer. But there may be some criteria which should be in the minds of those who face this question. An organization is clearly too big if an excess of enthusiasm, energy, and hope has resulted in an expansion whose financing is so shaky it impairs morale, or whose physical facilities are so crowded, research efficiency has suffered.

An organization should not grow further if it can do so only by using the illusory attraction of its size, resources, and prestige to rob other organizations of personnel which might, in terms of the total national effort, better stay where they are. In addition, the financial support necessary for the further expansion of a large institution may, under some circumstances, be obtained only at the expense of funds which should in fact go to other institutions.

Any enlargement of an organization is achieved only at a cost—of money, of facilities, and of personnel, all of which might otherwise be utilized elsewhere in other tasks. On the other hand, an organizational enlargement is presum-

ably always designed to produce new benefits. Only when these benefits clearly promise to outweigh the total cost, as judged unselfishly and broadly, is the expansion justified. No one can draw up a precise profit and loss statement for such a transaction, but he can at least attempt to weigh all the factors.

As growth occurs, it is inevitable that there will be increasing complications of organization, increasing difficulties of internal communication, and increasing inefficiency in the direct and detailed contact between the upper levels of leadership and the active research at the laboratory bench. An organization has already outgrown its optimum size if these unfortunate results of growth have combined to bring about that the whole is no longer more than the mere sum of the parts.

There are doubtless further important criteria for judging overgrowth of an organization. It is thus to be hoped that others will add to the discussion of this topic. *Warren Weaver, Rockefeller Foundation, New York. Science July 18, 1958.*

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Return of the raccoon

For most of us, the raccoon era is over. This comes as no surprise to those who remember John Held, Jr. cartoons, prohibition, and the shimmy (of both the Model T and Gilda Gray). Recently, however, the raccoon has managed to stage a quiet comeback.

So-called tame raccoons have become increasingly popular as household pets. These pets can cause trouble. The New York State Department of Health reports that these animals are subject to a disease whose symptoms are indistinguishable from rabies.

If the raccoon is to become popular again, it would seem much safer to welcome it as a pet, not a pet. *Hospitals. May 1, 1958.*

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Minutes of Council Meeting

The reorganization meeting of the new Council was held at the Hotel Sherman, Chicago, Sunday, July 13, 1958 with the following present: Oldfield, O'Neill, Lorne Mason, Camp, Clark, Kirby, Hesseltine, Reichert, Portes, Piszczek, Blair, Endres, Reisch, DuPuy, Goodyear, Montgomery, Fullerton, Roland R. Cross, Bornemeier, Oblinger, and Mirt.

The minutes of the Council meetings held during the annual meeting and also the meeting of April 20, 1958 were approved as mailed.

COMMITTEE ON COMMITTEES

Dr. Hesseltine reported as chairman of the Committee on Committees and the following changes were adopted:

- (1) The following committees were dissolved:
 - Advisory Committee—Illinois Occupational Therapy Association.
 - Sub-Committee on Dermatology—Advisory Committee to I.P.A.C.
 - Annual Meeting Study Committee
 - Committee on Birth Certificates
 - Committee on Blood Banks
 - Committee on Polio Vaccine Control

- (2) The following groups were combined to form:

- (a) Advisory Committee On Governmental Medical Services

- Advisory Committee to Selective Service
- Advisory Committee to Veterans Administration
- Liaison Committee, Illinois Division, American Legion
- Committee on Civil Defense
- Coroners' Committee

- (b) The Committee On Disease Control
 - Committee on Cancer
 - Committee on Cardiovascular Disease
 - Committee on Tuberculosis Control
 - Committee on Mental Health

- (3) The name of the Advisory Committee to the UMWA was changed to:

The Advisory Committee On Third Party Plans

- (4) Action was deferred until a later meeting of the Council on:

The Committee on Nursing
Committee on Postgraduate Medical Education & Scientific Service

- (5) The chairman of the Council was asked to appoint a committee of three members to make an objective study of the Postgraduate Medical Education and Scientific Service Committee, and to report back to the Council at its October meeting.

Following the approval of these recommendations, the Committee on Committees was discharged.

Dr. Montgomery read the personnel of the Council committees, and his appointments were approved by official action.

DISSEMINATION OF INFORMATION

The chairman stated he felt there should be a serious study of the setup in the Society, and serious thought given to the problem of the dissemination of information to the membership. The officers, councilors, and members of the various committees should have closer contact with individual members. Many of the problems faced by the Society could be solved by an extensive educational program. The activities must reach the grass roots in order to develop and maintain harmony and understanding.

REPORTS OF OFFICERS

Dr. Oldfield reported as president and told of the meetings he had attended. The outstanding session was the opening of the Kettering Health Museum in Hinsdale. The building represents an investment of about \$1,200,000 and contains the museum, a library, and office accommodations for approximately 50 physicians.

Dr. O'Neill reported as president-elect and outlined his attendance at various meetings, including that of the AMA in San Francisco.

The secretary, Dr. Camp, reported he had attended the Medicare meeting in Washington, D.C., with representatives of the Advisory Committee on Dependents Medical Care Program to renegotiate the contract for the coming year. Dr. Bornemeier also commented on the meeting, and the programs in Illinois. He assumed the members of the Council that the recommendations of the American College of Anesthesiology had been followed in establishing payments in that field.

EXECUTIVE SESSION

The Council went into executive session for the purpose of establishing salaries for all employees for the 1958-1959 fiscal year, and for considering various recommendations of the finance committee relative to expenditures and budgets.

NEW PILOT STUDY IN ILLINOIS

Dr. Roland R. Cross, director of the Department of Public Health, reported that he had received a letter from the Bureau of State Services, Department of Health, Education, and Welfare, as follows;

"The National Office of Vital Statistics and the Division of Biological and Medical Research at Argonne National Laboratory are interested in collecting residence and occupation histories and additional diagnostic information for a sample of deaths resulting from malignant neoplasms of the bone and buccal cavity. . . . We are writing to request your consent and approval to conduct this pilot study in the State of Illinois.

"The objectives are to explore the possible epidemiological relationship between residence and occupation exposures and bone sarcoma and to establish the quality of diagnostic information on death certificates for which bone sarcoma is coded as the underlying cause. . . . According to present plans a total of about 125 deaths during a one year period for which bone sarcoma was certified as the underlying cause would be queried in this pilot study. We would query an equal number of deaths due to carcinoma of the buccal cavity. Thus, approximately 250 deaths would be included in the pilot study during a 12 month period. . . . The physician who certified the death certificate would be queried for information pertaining to diagnostic methods. He would be queried first to give him an opportunity to contraindicate querying from the family informant if he feels this would be undesirable. The letter to the family requesting information on residence and occupational exposures of the deceased would be sent about 10 days after that to the physician. Copies of the forms to be used have not been prepared, but they will be similar to those used in the lung cancer mortality study.

"If the study meets with your approval, we would appreciate your assistance in enlisting the support of the state medical society. We would plan to begin the study during July or August,

1958, and it would be helpful if we could obtain an expression of your approval and that of the state medical society at an early date."

Discussion by Drs. Reichert, Piszczek, Blair (who stressed the importance of securing permission of the physician before the family is contacted).

Motion: (Piszczek-Fullerton) that the pilot study be approved. Motion carried.

SCHOOL HEALTH EXAMINATIONS

Dr. Camp read a letter from Mr. Vernon L. Nickell, superintendent of Public Instruction, addressed to Dr. Cross, relative to the ways and means of providing the physical examinations for school children as necessary under the law. This problem was referred to the Committee on School Health. The Council stressed the fact that the problem is always a local one; that the children should be seen by their family physician whenever and wherever possible, and that the ways and means of maintaining this relationship should be solved on the local level. The members of the Council stressed the importance of the examination itself as a factor in maintaining the health of the children and felt that every effort should be made to improve the type of examination given and extend the services in every way possible.

RE-REGISTRATION OF PHYSICIANS

Mr. Oblinger discussed the situation that has arisen under the amendment to the Medical Practice Act requiring the re-registration of physicians every two years. The Council voted that the secretary send a letter of protest to the Department of Registration and Education stating that it was not the fault of the physicians that their remittances were late this year, but it was due to the fact that the department was late in sending out the re-registration forms, and therefore no physician should be penalized under the law at this time.

APPROVAL OF JUDICIAL AMENDMENT

Mr. Oblinger also called the attention of the Council to an invitation to attend a meeting to launch the official campaign for the adoption of the blue ballot Judicial Amendment to the Illinois constitution. The House of Delegates approved this Judicial Amendment, and the Committee for Modern Courts should be notified so that the Illinois State Medical Society can be

considered as one of the participating organizations.

1959 ANNUAL MEETING

The question of the length of the 1959 annual meeting was discussed in detail, as were the problems of registration at the technical exhibit booths, the conflict between sessions of the House of Delegates and scientific meetings, and other matters. It was voted that:

(1) The 1959 annual meeting should be scheduled for 3½ days on Tuesday, Wednesday, Thursday, and Friday morning, closing officially at noon.

(2) That the chairman of the Council appoint a Committee on Exhibits to discuss plans to increase the attendance and the registration at the commercial exhibit booths during the 1959 meeting.

(3) That the possibility of having the first meeting of the House of Delegates on Monday evening before the meeting opens be considered as a way of avoiding conflict with scientific sessions; then, reference committees could meet on Tuesday and the second meeting of the House on Wednesday or Thursday morning, with the final session on Thursday or Friday morning.

COMMITTEE APPOINTMENTS

The chairman of the Council was authorized to appoint a Committee on Aging to co-operate with similar committee of the Council on Medical Service of the AMA. He also was authorized to consult with members of the Council on Medical Service and appoint a joint Committee on Arrangements for the Second International Congress on Medical Education to be held in Chicago, August 30 to September 4, 1959. Dr. George F. Lull, in charge of the plans for the meeting to be held next year, is anxious to have outstanding arrangements made for the visiting physicians from foreign countries.

LETTER TO GOVERNOR STRATTON

The secretary was instructed to send a letter to Governor Stratton thanking him for his attention to the salary scales in the Department of Public Health and the Department of Public Welfare. This change in salary affected physicians, dentists, and sanitary engineers employed by the State.

DATES OF COUNCIL MEETINGS

The schedule of Council meetings for the

1958-1959 fiscal year have been changed as follows:

September 7, 1958

October 12, 1958

December 14, 1958

February 1, 1959

March 8, 1959

April 26, 1959

May 19-22, 1959

WOMAN'S AUXILIARY

Dr. Bornemeier reported as chairman of the Advisory Committee to the Woman's Auxiliary. Dues in that organization were raised by official action on the part of their House of Delegates in session last May. However, the Auxiliary will need financial assistance for its 1958 and 1959 fall conferences or workshops, and will need help for the 1959 convention. Printing, secretarial service, and postage expenses also will be needed for another year. The recruitment program will need some additional financing. The suggested budget will be submitted at the September meeting of the Council for consideration of the Finance Committee and subsequent recommendation to the Council for action.

EMERITUS AND RETIRED MEMBERS

The following physicians were elected to emeritus membership and retired membership as listed.

EMERITUS:

Baird, Robert	Dixon	Lee County
Hildreth, Charles E.	Mt. Pulaski	Logan County
Lund, John M.	Dixon	Lee County
Salisbury, Emma H.	Carthage	C.M.S.

RETIRED MEMBERSHIP

Baumann, Theodore A.	Rockford	Winnebago County
Kammerling, T. S.	Melrose Park	C.M.S.
Patchanian, Giragos	Hamp- shire	Kane County
VanOosten, Chas. S.	Downers Grove	C.M.S.
Vetter, James H.	Rockford	Winnebago County

The Council adjourned at 12:30 o'clock.

Respectfully submitted

HAROLD M. CAMP, M.D., Secretary

CORRESPONDENCE



Clinics for crippled children listed for October

Twenty-two clinics for Illinois' physically handicapped children have been scheduled for October by the University of Illinois, Division of Services for Crippled Children. The Division will count 17 general clinics providing diagnostic orthopedic, pediatric, speech, and hearing examination along with medical, social, and nursing service. There will be 2 special clinics for children with cardiac conditions, 2 for children with rheumatic fever, and 1 for cerebral palsied children.

Clinics are held by the Division in co-operation with local medical and health organizations, both public and private. Clinicians are selected among private physicians who are certified Board members. Any private physician may refer to or bring to a convenient clinic any child or children for whom he may want examination or consultative services.

October 1 — Alton (Rheumatic Fever), Memorial Hospital

October 1 — Hinsdale, Hinsdale Sanitarium

October 3 — Chicago Heights (Cardiac), St. James Hospital

October 9 — Cairo, Public Health Building

October 9 — Springfield, St. John's Hospital

October 10 — Evanston, St. Francis Hospital

October 14 — Danville, Lake View Hospital

October 14 — East St. Louis, St. Mary's Hospital

October 14 — Peoria, Children's Hospital (St. Francis)

October 14 — Quincy, Blessing Hospital

October 15 — Chicago Heights (General), St. James Hospital

October 16 — Elmhurst (Cardiac), Memorial Hospital of DuPage Co.

October 16 — Flora, Clay County Hospital

October 16 — Rockford, St. Anthony's Hospital

October 21 — Belleville, St. Elizabeth's Hospital

October 22 — Elgin, Sherman Hospital

October 22 — Springfield (Cerebral Palsy), Memorial Hospital

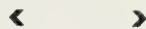
October 23 — Bloomington a.m. (General), p.m. (Cerebral Palsy), St. Joseph's Hospital

October 23 — Mt. Vernon, Masonic Temple

October 28 — Effingham (Rheumatic Fever), St. Anthony Hospital

October 28 — Peoria, Children's Hospital (St. Francis)

October 29 — Carrollton, Carrollton Grade School



Am. College of Surgeons to hold annual meeting

The 44th annual Clinical Congress of the American College of Surgeons will be held in the Conrad Hilton Hotel, Chicago, October 6-10. More than 10,000 surgeons, physicians, students, and related personnel will attend.

The program will include postgraduate courses, research forums, panels, closed-circuit telecasts, medical motion pictures, cine clinics, and exhibits.

Approximately 200 reports on research in surgical progress and surgery of the future will be made. Postgraduate courses will cover developments in preoperative and postoperative care, heart surgery, injuries, hip disabilities, gynecology and obstetrics, surgery in children, pulmonary disease, liver, biliary tract, pancreas, and gastrointestinal tract.

More than 1,100 initiates will be presented for fellowship in the College. Honorary fellowships will be conferred and officers inaugurated.

Dr. Robert L. Schmitz, Chicago, assistant professor of surgery, Stritch School of Medicine of Loyola University, is chairman of the Local Advisory Committee on Arrangements. Other Chicago chairmen include: Drs. Walter W. Carroll, Northwestern University, and J. Garrott Allen, University of Chicago, televised program of operations from Passavant Memorial Hospital; Dr. Hilger P. Jenkins, medical motion pictures; Dr. John L. Keeley, press relations.



Rhinologic society to hold annual meeting in Chicago

The American Rhinologic Society will hold its fourth annual meeting in the Palmer House, Chicago, October 17-18.

Among the topics to be discussed will be pulmonary and nasal physiology, laboratory and clinical aspects of bone transplants, hump removal, roof repair, and nasal process corrections.

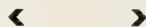
The preliminary program includes the following papers:

"Maxillary and Premaxillary Approach to Septal Surgery," Dr. Ralph H. Riggs, Shreveport, La.; "Olfactory Factors in Experimental Neurosis in Animals," Dr. Jules H. Masserman, Chicago; "Second Golden Decade of Rhinologic Surgery—the Advances of the Past 10 Years," Dr. Harvey C. Gunderson, Toledo; "Physiology of Respiration," Dr. David Cugell, Chicago; "Concepts of Nasal Physiology as Related to Corrective Nasal Surgery," Dr. Maurice H. Cottle, Chicago; "Nasal Physiology," Dr. Irving Cramer, Cleveland; "Bone Transplants; Experimental and Clinical Aspects," Dr. Robert Ray, Chicago.

"Hump Removal, Roof Repair, Nasal Process Corrections," will be the subject of a panel. Dr. Walter Loch, Baltimore, will be the moderator.

Dr. Russell I. Williams, Cheyenne, president

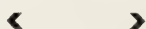
of the Society, will preside. Dr. Guy L. Boyden, professor of otolaryngology, University of Oregon Medical School, Portland, will be guest of honor. Physicians are invited as guests. There will be no registration fee. Write Dr. Robert M. Hansen, secretary, 1735 North Wheeler Avenue, Portland 17, Ore., for further information.



Plan chest PG courses

The Council on Postgraduate Medical Education of the American College of Chest Physicians will present two courses this year. One will be on clinical cardiopulmonary physiology at the Edgewater Beach Hotel, Chicago, October 13-17, and the other on diseases of the chest at the Park-Sheraton Hotel, New York, November 10-14. The tuition for each course is \$100.

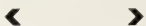
Write the American College of Chest Physicians, 112 East Chestnut Street, Chicago 11, for further information.



AMA to hold annual symposium on nutrition

More than 500 physicians, nurses, and dietitians will attend the 5th annual symposium of the AMA's Council on Foods and Nutrition, to be held in Madison, Wis., October 16. Co-sponsors will be the University of Wisconsin Medical School, Dane County Medical Society, and the State Medical Society of Wisconsin.

Factors involved in the formation and diseases of bone will be discussed in several papers and two panels.



Nomenclature institute

The third in the 1958 series of the AMA's regional Nomenclature Institutes will be held in Philadelphia, November 3-5. The short course is offered to medical record librarians and others working in hospitals, physicians' offices, or clinics.



Forum on allergy

The Midwest Forum on Allergy, sponsored by the Michigan Allergy Society, will be held in Detroit, December 6-7. Further information may be obtained from Dr. John M. Sheldon, University Hospital, Ann Arbor, Mich.

Am. C. of P. meeting

The American College of Physicians will hold a midwest regional meeting at the Milwaukee County Hospital, Milwaukee, September 27. A scientific program of 22 papers has been arranged. The meeting will be open to all physicians, whether or not members of the College.

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Medical assistants to meet

The American Association of Medical Assistants will hold its annual meeting in the Palmer House, Chicago, October 31-November 2.

The program will include an advisors' symposium and sessions on office procedures, medical subjects, and technical matters. The annual banquet and installation will be held on Saturday evening, November 1.

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To present symposium on infectious diseases

Speakers from six medical schools will participate in the second annual Symposium on Infectious Diseases, to be held on the Medical Center campus, Kansas City, Kan., September 19. The program will be sponsored by the American Academy of General Practice, Kansas University Medical Center, and Lederle Laboratories.

Among the speakers will be Dr. Harry F. Dowling, Chicago, professor and head of the department of internal medicine, University of Illinois College of Medicine, whose topic will be "Control and Treatment of Staphylococcal Infections."

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Fellowship for women

The Women's Medical Association of the City of New York is offering a \$2,000 fellowship to a graduate woman physician for medical research, clinical investigation, or postgraduate study in a special field of medicine.

Application blanks and further information may be had by writing to Dr. Ada Chree Reid, 118 Riverside Drive, New York 24.

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Award for research

The Institute of Medicine of Chicago is offering its annual \$300 prize for the most meritori-

ous investigation in medicine or specialty. The competition is open to graduates of Chicago medical schools who have completed their internship or one year of laboratory work prior to January 1, 1958, excluding service in the Armed forces.

Manuscripts must be submitted to the institute, 86 East Randolph Street, Chicago 1, prior to January 1, 1959.

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Conference on arthritis

Eleven nationally prominent investigators will present results of original work and clinical experience with arthritis and related disorders at a conference in Oklahoma City, November 12-15.

The program has been developed by the University of Oklahoma Medical Center and is being sponsored by Geigy Pharmaceuticals, Wyeth Laboratories, Upjohn Company, Pfizer Laboratories, Schering Corporation, and Oklahoma Chapter of the Arthritis and Rheumatism Foundation.

Write to Office of Postgraduate Education, University of Oklahoma School of Medicine, 801 Northeast 13th Street, Oklahoma City, for information.

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Chest physicians take position on BCG

The Executives Council of the American College of Chest Physicians in a resolution expressing its position in regard to the use of BCG against tuberculosis in the United States said "there is insufficient evidence that significant protection is afforded by its use."

The council endorsed the antituberculosis control program of the United States Public Health Service, including research in BCG, and urged the continued support of the program.

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American Public Health Association to meet

The American Public Health Association will hold its 86th annual meeting in St. Louis, October 27-31. More than 4,000 health authorities are expected to attend.

The program will feature reports on progress

made by voluntary and governmental agencies toward solving major health problems. One session will deal with ionizing and atmospheric pollution. Other topics to be discussed will be dental health, engineering and sanitation, epidemiology, food and nutrition, maternal and child health, mental health, occupational health, public health nursing, and school health.

Write to American Public Health Association, 1790 Broadway, New York 19, for further information.

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Hospitals set new high in patients treated

Hospitals in the continental United States cared for 22,993,000 patients in 1957, more than in any previous year and an increase of more than 900,000 over the 1956 total of 22,089,000, the American Hospital Association reported. Babies born in U.S. Hospitals last year totaled 3,739,259, a rise of 248,118 over 1956. On any given day in 1957, an average of 1,320,000 patients and 48,775 newborn infants were hospitalized.

Voluntary hospitals, which care for the great majority of the acute short-term cases, spent an average of \$26.81 a day for the care of each patient, an increase of \$1.82 over 1956. The average patient stay was 7.4 days, as against 7.5 days in 1956.

Patients in voluntary hospitals paid an average of \$1.52 a day less in 1957 than it cost to care for them. Total income from patients in all voluntary hospitals in 1957 was \$2,878,254,000, while expenses were \$3,050,398,000. Patient income made up 94.3 per cent of the total income of all these hospitals in 1957, as compared with 96.1 per cent in 1956. The balance came from contributions, grants, and income from such sources as endowments.

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Gastroenterologists to meet

The American College of Gastroenterology will hold its 23rd annual meeting in New Orleans, October 20-22. There will be scientific papers, panel discussions on gastric carcinoma and the use of steroids, and scientific and commercial exhibits.

A three-day course in postgraduate gastro-

enterology will be presented on October 23-25.

Further information may be had by writing to the American College of Gastroenterology, 33 West 60th Street, New York 23.

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Air Force needs G.P.s

The Air Force is still in need of general practitioners. Approved residencies are available at the USAF Hospital, Maxwell Air Force Base, Ala., and certain civilian hospitals.

The Air Force's G.P. residency program provides one year of training in medicine, including pediatrics and psychiatry, and one year in surgery, including traumatic surgery, fractures, and obstetrics and gynecology.

Interested physicians may write to the Surgeon General, USAF, Washington 25.

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Symposium on carcinoma of colon to be held

A symposium on carcinoma of the colon and rectum will be presented at the annual scientific session of the American Cancer Society in New York, October 20-21.

In addition to papers, there will be panels on pathogenesis, etiology, diagnosis, treatment, and problems of cancer of the colon and rectum.

Among the Chicago participants will be Drs. Warren H. Cole, Richard K. Gilchrist, and Howard F. Raskin.

Inquiries should be sent to the director of professional education, American Cancer Society, 521 West 57th Street, New York 19.

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Auto safety crusader cited

Dr. Fletcher D. Woodward, chairman of the AMA's Committee on Medical Aspects of Automobile Crash Injuries and Deaths, has been awarded the Allstate Insurance Companies' certificate of commendation for his leadership in traffic safety. Dr. Woodward is clinical professor of otolaryngology at the University of Virginia Department of Medicine, Charlottesville. He has emphasized the need for strict physical fitness requirements for drivers, seat belts as standard equipment, improved law enforcement, and stern treatment of drunken and reckless drivers.

THE P. R. PAGE

John A. Mirt



Suggests four-point PR program

The medical profession is being criticized in popular magazines, the daily press, and even in professional journals. The sins of a few are being magnified in the eyes of the public.

Physicians are being blamed for the increase in medical care costs, although the principal factors have been hospitalization and drugs costs. Laymen are being given the impression that fee-splitting, overcharging, and unethical procedures—practices of a small minority—are the rule. Cartoons portray physicians as wealthy and avaricious, and their sports are stressed rather than their abilities as practitioners of the healing arts.

The result is that medicine has lost some of its high standing among patients and the public. To reverse this trend, Dr. Irving Burka, in an editorial in the *Medical Annals of the District of Columbia*, recommends a four point program:

“(1) That we all attempt to abide by the Code of Ethics of the AMA and that a more stringent set of regulations be enacted to control and censure, vigorously, those few who do not conform.

“(2) That we invite the public, whenever possible and with proper control, to participate in discussions, forums, and on good will committees.

“(3) That we go on the offensive. Not only must we do this with the aid of professionals, but each of us must become a press agent. It is time that we begin to publicize

the good that medicine is doing. The long hours of work by the individual physician, the many years spent in preparation for practice, the amount of charity he gives in proportion to the rest of the population, the many indigent patients for whom he provides medical care should be brought to light. Let us likewise emphasize the leadership that our societies have given in the field of preventive medicine, in improving medical education, in promoting the ethics of the profession, in providing emergency telephone service, in instituting and backing prepaid hospitalization and medical cost insurance for the middle- and low-income groups, and in proposing many acts of legislation, both on the local and national level, for the benefit of the public.

“(4) That every one of us make a study of the pressures and trends of present-day economic, political, and social factors. Furthermore, it is imperative that each member take a more active rather than a passive role in the activities of our own society. I respectfully recommend that he become better acquainted with the thinking and philosophy of the many excellent men who give so much of their time and effort to the society, and to learn about some of the aims and purposes of the various committees and sections, which are the backbone of any organization.”

PR tip of the month

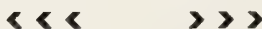
From Dr. Harry McGavran, Quincy, Ill., comes this suggestion for driving home a lesson in safety and helping out a worthwhile organization at the same time. Dr. McGavran suggests turning over the next fee from a highway accident case to the Boy Scouts of America to help promote their "Safety Good Turn for 1958" project. The patient should make out his check directly to the Boy Scouts (or some other worthwhile organization) so that he is fully aware of the physician's interest in accident prevention.

The Boy Scouts' "Safety Good Turn" is a year-long crusade to reduce the toll of accidental deaths and injuries by rousing public concern about accident prevention.—From AMA "The PR Doctor."

AMA pamphlets available

"Salute to the Medical Profession," the dramatic tribute to the American Medical Association and its members made June 22 on NBC's "Monitor" broadcast by Alex Dreier, noted commentator, is being distributed by the AMA. Copies may be obtained from the AMA's Public Relations Department.

Two leaflets for distribution in physicians' offices and at state and county fairs or similar public gatherings, may be obtained through the Illinois State Medical Society's Secretary's office. They are "Do You Like to Make Decisions?" which stresses the physician's judgment in prescribing personalized care suited to the patient's need, and "The Fifth Freedom," dealing with the importance of the patient's right to choose the physician who will best serve his family.



Abortion and public opinion

It would seem that all the states have been consistent in condemning the practice of induced abortion (except for therapeutic abortions) even though they have not been consistent in the degree of penalty attached to it. It is also true that the churches, and particularly the Catholic Church, have been most severe in their condemnation of induced abortion. However, on the other side of the coin, we find that defense lawyers know that their best way to win an abortion case is to secure a jury rather than a court trial. Police and other officials often allow known abortionists to practice since it is felt that there is a need for their services. In 1944

only 116 persons were convicted for illegal abortions in the 24 states of the union reporting on this. This amounts to one abortion conviction for every 625,000 in the population in that year. This, again, is a demonstration of society's unwillingness to penalize the abortion specialist. In our own sample we find that the great percentage of the women who had an illegal abortion stated that it had been the best solution to their immediate problem. This widespread difference between our overt culture as expressed in our laws and public pronouncements and our covert culture as expressed in what people actually do and secretly think is as true with abortion as with most types of sexual behavior. *P. H. Gebhard et al. Pregnancy, Birth, and Abortion.*

AT THE EDITOR'S DESK



DRUGS

Capsebion is Pitman-Moore's new therapeutic shampoo for symptomatic control of dandruff. It contains one per cent cadmium sulfide suspension in a shampoo base. The company claims the compound can be used safely over a long period and is effective for the constant control of seborrheic dermatitis of the scalp. It is applied as a shampoo, then reapplied and allowed to remain on the hair a few minutes. A final rinse and the treatment is finished.

Delvex (dithiazanine iodide, Lilly) is a new broad spectrum anthelmintic that destroys or eliminates whipworm, threadworm, large roundworm, and pinworm. It is said to be 100 per cent successful in eliminating the latter.

Winthrop Laboratories announces its experimental drug — Trancopal (chlormethazone) — has been used to treat painful muscle spasms and mental tension in more than 3,000 patients. Dr. A. L. Lichtman, a New York surgeon, reported the compound to be "about 90 per cent effective and safe as aspirin." He said it can be given in smaller doses and is safer when compared with meprobamate and other currently used muscle relaxants. Among the disorders treated were musculoskeletal conditions such as low back pain, sciatica, stiff neck, bursitis, rheumatoid arthritis, osteoarthritis, postoperative spasm, and anxiety states. We are suspicious of drugs that are recommended for so many conditions but time will tell whether the good doctor from New York is right.

A recent news release on Japan's kanamycin, the newest antibiotic developed by Bristol Laboratories (Kantrex) is headed "New antibiotic aids mental disorder." This intrigued your editor because most mental disorders are of emotional rather than infectious origin. We thought at first the broad spectrum was being extended a wee bit too far. It developed that the drug was used to treat the psychic state that occurs in conjunction with liver failure due to cirrhosis. The rationale, according to the release, is that kanamycin "is used to treat psychotic states because of its ability to reduce the intestinal population of germs that produce ammonia." The work is based on "two reports on this novel bowel-to-brain medical approach." It is well known that ammonia is not removed from the blood stream during liver insufficiency. In this respect, kanamycin is a contribution to the treatment of late stages of cirrhosis. We object to the misleading caption that implies a new psychiatric discovery. The sale of this drug depends upon its value as an antibiotic and it is difficult to understand why a reputable product should be subjected to this type of ballyhoo. Apparently the publicity writers have confused the hallucinations of the precomatose and comatose patient with ordinary mental disorders. Obviously, they have never seen patients in this state.

Vistaril is Pfizer's new psychotherapeutic agent. The company says it has prolonged and potent tranquilizing action and "has been shown to have antihistaminic, antisecretory, antiar-

rhythmic, and muscle relaxing activity. Anti-serotonin, antispasmodic, anticholinergic properties also have been demonstrated experimentally."

Tranquilizing drugs do not cure mental disorders. On the other hand, 38 VA hospitals found them effective in the treatment of schizophrenia in a large scale controlled research program. The results show that chlorpromazine and promazine were more effective than others in controlling belligerence, bizarre behavior, withdrawal from people, and disorganization of thinking. Patients are more co-operative and respond to specific treatment including psychotherapy, rehabilitation, and hospital industry assignments.

Polymagma and Polymagma Plain are Wyeth's new antidiarrheal preparations. These products are said to be five to eight times more effective than kaolin. Polymagma contains dihydrostreptomycin and polymyxin B sulfate. In 84.5 per cent of 1,450 patients, diarrhea was controlled within 48 hours, and the entire group recovered within 72 hours.

Urobiotic is Pfizer's new shotgun prescription for urinary tract infections. It combines oxytetracycline hydrochloride, potentiated with glucosamine, with sulfamethizole and the local anesthetic, phenylazo-diamino-pyridine.

Hincornstarch, a new two-in-one drug with low toxicity, is giving promising results in the treatment of pulmonary tuberculosis. It is a polymer made of isoniazid and a thiosemicarbazone, with a potato starch base. It was used by a group of Irish investigators with 65 per cent improvement at the end of three months and 80 per cent at the end of six months of treatment. Cavities closed in 55 per cent, and 85 per cent of the patients became sputum negative.

DELINQUENCY

According to Dr. Vincent T. Lathbury, assistant professor of psychiatry, University of Pennsylvania School of Medicine, parents often create delinquent behavior in their children by discouraging and punishing their aggressiveness. "Parents should be careful in trying to rid their children of disagreeable character traits.

These traits, when they mature, might become very desirable." Dr. Lathbury feels "the successful treatment of juvenile delinquency depends on a reasonable, tolerant approach by parents — an approach recognized by the youngster as having his best interests at heart."

CHOLESTEROL SYNTHESIZED

A research group from VA and the University of Wisconsin reported it has made cholesterol synthetically in the laboratory. This may represent a step toward identifying the manner in which the human body manufactures this chemical.

HIGH PRESSURE SALESMEN

The manufacturers' of mobile homes are doing their best to push the new trailer therapy advocated by William L. Slade, Ph.D. of Sun Valley, California. This psychologist's method involves sending patients on trips to the oceans, deserts, mountains, lakes, and foreign countries in modern travel trailers. He bases its healing powers on environmental change. Persons with emotional disorders rarely obtain permanent improvement by running away from their problems but this plan will sell trailers.

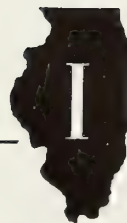
CAPSULE TALK

Medicinal capsules were first developed in France by Monsieur A. DeMothe in 1833. He perfected a soft, elastic, one-piece capsule from a mixture of gelatin, glycerin, sugar, and water. These containers, made slowly by hand, were spheroid in shape with elongated lips. The lips were removed, and after medicinal ingredients were placed in them, the openings were sealed by applying a drop of gelatin solution. The modern capsule is made by a huge machine that produces 40,000 capsules on precision made casting molds at one time.

STEP-WISE REDUCING

Charlotte M. Young of the Graduate School of Nutrition at Cornell University has introduced a step-wise reducing schedule. A high protein—low caloric diet is advised for three weeks, followed by a more liberal diet to hold the weight without loss or gain for two weeks. This is followed by another three weeks on the limited diet, followed by two weeks recess, ad infinitum.

NEWS of the STATE



COOK

HEALTH CENTER. A new health center for students at Northwestern University will be started early in 1959. The building, a two story structure with clinic facilities on the first floor and an infirmary on the second, is the gift of John G. Searle, vice president of the university board of trustees and president of G.D. Searle & Co., Chicago medical research and pharmaceutical manufacturing firm.

GRANTS. Three research grants have been awarded to University of Chicago scientists by the U. S. Public Health Service, including one to J. Kamiya, assistant professor of psychology. The Public Health Service also awarded predoctoral fellowships to Theodore J. Spahn, department of medicine; Dr. Francis H. Straus, department of pathology; and Mark A. Goldberg, department of pharmacology.

Dr. Samuel Feinberg, director of the Allergy Research Laboratory, Northwestern University Medical School, was given a \$6,000 grant from the Asthmatic Children's Aid Society to further investigations of insect dust as a common cause of asthma and hay fever; Dean Richard H. Young was given \$12,000 for three-year support of short term research by medical students.

AWARDS. The University of Chicago Medical Alumni Association at its annual meeting presented Distinguished Service Awards to Dr. LeRoy H. Sloan, Chicago, clinical professor of

medicine at the University of Illinois College of Medicine, and to three former members of the faculty of the University of Chicago School of Medicine: Dr. Louis Leiter, New York, clinical professor of medicine, Columbia University College of Physicians and Surgeons; Dr. William W. Scott, Baltimore, professor and head of the department of urology, Johns Hopkins University School of Medicine; and Dr. Ernest H. Yount, Jr., Winston-Salem, N. C., professor and director of the department of medicine, Bowman-Gray School of Medicine of Wake Forest College.

Golden Keys of the alumni were presented to two Chicagoans: Dr. Hilger Perry Jenkins, clinical associate professor of surgery, University of Illinois College of Medicine; and Dr. Eleanor M. Humphreys, professor of pathology, University of Chicago School of Medicine.

RADIOLOGY. Dr. Robert D. Moseley, Jr. has been appointed professor and chairman of the department of radiology at the University of Chicago, succeeding Dr. Paul C. Hodges, who retired. Dr. Moseley is one of the three-doctor team that developed a method of destroying the pituitary gland, useful in the treatment of some cancers. In the new technique, destructive radioactive yttrium-90 pellets are implanted in the gland by a needle inserted through the nose and guided with the aid of electronic fluoroscopes.

RETIREMENT. More than a score of Cook County Hospital physicians and surgeons are vol-

untarily retiring because of their age, including Dr. Karl Meyer, 71, chief surgeon. By deciding not to take the rugged competitive examinations scheduled this fall and required every six years as the only avenue of admission or continuing on the staff, the seniors, have indicated their decision to move into consulting posts, making way for 20 younger physicians. Dr. Raymond W. McNealy, 72, (since deceased) staff president, was among the retiring group.

REHABILITATION. The Blind Center at Hines celebrated its first decade of service. This center conducts the only program of its kind in the VA and armed forces. It has helped 470 blinded veterans to "see" with walking canes, to overcome fear in doing ordinary things, to use power tools and appliances, and to become independent, useful citizens again.

NEW OFFICERS. AMERICAN MEDICAL WOMEN'S ASSOCIATION, BRANCH No. 2, CHICAGO

Gertrude Engbring, M.D.	President
Lilly A. Rappolt, M.D.	President-elect
Hildegard Schorsch, M.D.	First vice president
Julia Apter, M.D.	Second vice president
Fern E. Asma, M.D.	Recording secretary
Janet R. Kinney, M.D.	Corresponding secretary
Valerie Genitis, M.D.	Treasurer
Florence M. Rees, M.D.	Assistant treasurer

CHICAGO GYNECOLOGICAL SOCIETY

H. Close Hesseltine, M.D.	President
Clyde J. Geiger, M.D.	President-elect
Alfred J. Kobak, M.D.	Vice president
William G. Cummings, M.D.	Secretary
Edward S. Burge, M.D.	Assistant secretary
Walter F. Dillon, M.D.	Treasurer

CHICAGO SOCIETY OF INTERNAL MEDICINE

Ernest G. McEwen, M.D.	President
Wright Adams, M.D.	Vice president
Franklin A. Kyser, M.D.	Secretary-treasurer

MISCELLANY. Dr. Andrew J. Toman, health commissioner of Berwyn, a nationally known gunshot wound surgeon, joined the staff of Sheriff Joseph Lohman as a volunteer consult-

ant. Dr. Toman, who for 20 years was medical superintendent of Chicago's House of Correction, will be on call at the County jail hospital and available for emergency duty with the sheriff's police force. He is the son of former Sheriff John Toman.

Dr. James R. Fink, Skokie, has been elected president of the medical staff of Swedish Covenant Hospital. Dr. Russell E. Elmer is the new staff vice president and Dr. W. F. Hutson was re-elected secretary-treasurer.

Central Community Hospital, 5701 S. Wood St., Chicago, gave free medical examinations to the children of the Protestant Child Haven before they left for their summer vacation at Camp Cutten, Lake Villa.

The Chicago Home for Incurables and the University of Chicago have entered into an affiliation by which the Home is to construct a new hospital adjacent to the University Clinics. It will become a model center for study and treatment of chronic illness, with special emphasis on older age groups.

Two graduates of Chicago Medical School have been named to their faculty; Drs. Henry L. DuVries will serve as a clinical instructor in surgery, and Dr. Marvin D. Moss as a clinical instructor in medicine.

Dr. Bernard J. Michela, a member of the staff of the Rehabilitation Institute of Chicago, has been named its medical director. He succeeds Dr. Joseph H. Chivers, who was elected to the board of directors.

Dr. Sidney Cohen has been appointed head of the microbiology department of Michael Reese Hospital Medical Center Research Institute.

EDGAR

CELEBRATION. The second week-end of July was set aside to honor Dr. Floyd B. Weaver of Kansas. "A Country Doctor" was the theme and the program started with a parade led by the Dr. and Mrs. Weaver riding in a convertible. Later he was presented with a plaque by the people of the Kansas Community in appreciation of his many years of civic and professional services. The highlight of the event occurred on Sunday evening when 2,500 friends watched a program "This is our secret, Dr. Weaver — this is you Life."

WARREN

OFFICER. Dr. John Firth rounded out a year in July as *grand chef de gare* for the Forty and Eight, an honor and fun organization of the American Legion. He is now *cheminot nationale*, and as such will represent the state of Illinois in the national organization.

EUROPE. Dr. Russell Jensen visited the Scandinavian countries, Scotland, and England recently. While in Europe he attended several medical meetings including those of the Swedish Surgical Society and the American College of Surgeons in Stockholm.

GENERAL

Dr. Verdamae Karr McKee, who has been serving at East Moline State Hospital since 1947, has been appointed superintendent of the Dixon State School.

Dr. Ross T. McIntire, Chicago, executive director of the International College of Surgeons, spoke on "The Responsibility of the Medical Profession in Rehabilitation" at the annual meeting of the Montana Medical Association in Billings, September 11.

Dr. Arnold S. Jackson, Madison, Wis., past president of the U. S. Section, International College of Surgeons, spoke on "Treatment of Thyroid Diseases."

The Montana Section of the I.C.S. held a meeting on the day before, with Dr. Louis W. Allard, Billings, regent of Montana, in charge. Drs. McIntire and Jackson participated.

Drs. Charles K. Petter, Waukegan, treasurer, and Albert H. Andrews, Chicago, assistant treasurer, are among the newly elected officers of the American College of Chest Physicians. The organization awarded Certificates of Fellowship to the following physicians from Illinois: Carl Davis, Jr., William S. Dye, William H. S. Ironside, Benjamin M. Kaplan, Maurice Lev, and Charles W. Pfister, Chicago; A. Edward Livingstone, Bloomington.

A complete medical laboratory for the preparation of calf lymph dried smallpox vaccine will leave Chicago shortly for shipment halfway around the world to Dacca, the capital of East Pakistan.

In the 31,000 pound, 122 case shipment are 91 different items ranging from analytical reagent chemicals for preparing cultures to freezers

and refrigerators for storage of the finished vaccine. The material in the shipment will include 100,000 serum bottles, 4 million aluminum bottle stoppers, 1 million rubber stoppers, a sterilizing oven, all forms of glassware (including beakers, flasks, and centrifuge tubes), culture incubators, two hospital-type autoclave sterilizers, two 16 foot deep freeze units, and a 14 foot refrigerator.

The laboratory will be capable of preparing cultures, processing the serum, and packaging it for distribution throughout the country. An inoculation center also will be set up in Dacca, operating in conjunction with the laboratory, to inoculate local residents. This \$50,000 laboratory is being assembled by Arthur S. LaPine and Company, Chicago, under a contract with International Co-operation Administration.

The establishment of this vaccine producing laboratory will be the first such installation in that part of the world. When Pakistan suffered an outbreak of smallpox and cholera of epidemic proportions in April, the United States government sent a team of nine physicians to inoculate the 6 million residents of the immediate epidemic area, thus arresting the epidemic. The laboratory to be established in East Pakistan will be set up to produce smallpox vaccine to inoculate the remaining 50 million inhabitants of the nation.

LECTURES ARRANGED BY THE ILLINOIS STATE MEDICAL SOCIETY

IRVING H. ROSENTHAL, instructor in pediatrics at Stritch School of Medicine of Loyola University, addressed the Bureau County Medical Society in Spring Valley, September 9, on "Fluids and Electrolytes in the Newborn."

ARNOLD WAGNER, associate in medicine at Northwestern University Medical School, addressed the LaSalle County Medical Society in Ottawa, September 11, on "Sugar Metabolism in the Aged."

ARTHUR W. FLEMING, associate professor of medicine at Stritch School of Medicine of Loyola University, addressed the Champaign County Medical Society in Champaign, September 11, on "Newer Concepts in Pediatrics."

IRVING E. STECK, clinical assistant professor of medicine, University of Illinois College of Medicine, addressed the Stephenson County Medical Society in Freeport, September 18, on "Management of Rheumatoid Arthritis."

A. WALTER WISE, staff member of St. Anthony's Hospital in Rock Island, the Hancock County Medical Society in Carthage, October 14, on "Diagnostic Problems in Relations to Coronary Artery Disease."

BENJAMIN BLACKMAN, clinical assistant in neurology and psychiatry, Northwestern University Medical School, Bureau County Medical Society in Princeton, October 14, on "Pharmacotherapy in Mental Illness."

F. GARM NORBURY, Director, Norbury Sanatorium, Jacksonville, joint meeting of the Montgomery and Macoupin County Medical Societies in Litchfield, October 15, on "Psychiatric Problems in General Practice."

LOUIS R. LIMARZI, associate professor of medicine, University of Illinois College of Medicine, Kankakee County Medical Society in Kankakee, October 21, on "The Anemias."

DEATHS

WALTER S. BARNES*, retired, Chicago, who graduated at the Buffalo School of Medicine in 1892, died August 2, aged 89. He was a former chief surgeon at Mercy Hospital and a member of the staff for 65 years.

LEOPOLD BENNO BERNHEIMER*, Chicago, who graduated at the University of Illinois College of Medicine in 1922, died July 15, aged 62. He was a staff member of the ear, nose, and throat department of the Michael Reese Hospital.

JOHN C. BOODEL*, Chicago, who graduated at Northwestern University Medical School in 1913, died July 8, aged 66. He had been a member of the teaching staff at Cook County Hospital for 20 years.

ORVILLE LESTON DENYES*, Momence, who graduated at the Chicago Medical School in 1931, died May 30, aged 57, in an automobile accident. He was a member of the staff of St. Mary's Hospital in Kankakee, and surgeon for the Chicago and Eastern Illinois Railroad.

LEO J. ESCHELBACHER*, Mount Vernon, who graduated at the Universität Basel Medizinische Fakultät, Switzerland, in 1936, died July 9, aged 47.

PATRICIA JORDAN*, Chicago, who graduated at the Chicago Medical School in 1949, died April 28, aged 43, of coronary occlusion. She was a member of the American Psychiatric Association and a staff member of the Milwaukee Sanitarium Foundation.

HARRY FRANKLIN KILLENE*, East St. Louis, who graduated at the Eclectic Medical Institute, Cincinnati, in 1909, died April 6, aged 75, of cellulitis of the face and neck secondary to carcinoma. He was associated for many years with St. Mary's and the Christian Welfare Hospitals, and was company physician for the Illinois Central Railroad.

RAYMOND W. MCNEALY*, Chicago, who graduated at the University of Illinois College of Medicine in 1910, died July 29, aged 71. He had been president of the staff of Cook County Hospital since 1931 and staff member since 1917; emeritus-chief of surgery at Chicago Wesley Memorial Hospital; associate professor emeritus of surgery at Northwestern University Medical School; president of the United Research Foundation; a fellow of the American College of Surgeons, and honorary fellow of the International College of Surgeons. He had announced recently that he would retire January 1 as staff president at County Hospital "in order to make room for younger doctors."

L. ROBERT MELLIN*, Chicago, who graduated at Bennett Medical College, Chicago, in 1914, died August 6, aged 65. He was a member of the staffs of Alexian Brothers and Columbus Memorial Hospitals, and a past commander of Ad Men's Post 38 of the American Legion.

JOSEPH T. MEYER*, Chicago, who graduated at the Chicago College of Medicine and Surgery in 1913, died July 29, aged 72. He was head of the staff and chief surgeon at St. George's Hospital for many years. He was a member of Loyola University's president's council, and a past president of the university's medical alumni.

JAMES L. MILOS*, Chicago, who graduated at Loyola University School of Medicine in 1931, died July 18, aged 53. He was a member of the staff of St. Francis Hospital in Blue Island.

FREDERICK OAKES*, Schiller Park, who graduated at Bennett Medical College, Chicago, in 1915, died July 28, aged 72. He was a member of the staff of DuPage County Memorial Hospital, Elmhurst, former chief of staff at Westlake Hospital in Melrose Park, and a staff member of West Suburban Hospital, Oak Park.

PAULINE JOSEPHINE RYTEL*, Chicago, who graduated at Uniwersytet Jozefa Pilsudskiego,

*Indicates member of the Illinois State Medical Society.

Warszawa, Poland, in 1927, died May 5, aged 55, of uremia, nephrosclerosis, and hypertension.

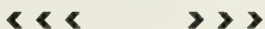
CHARLES E. SHANNON*, Chicago, who graduated at Rush Medical College in 1926, died July 18, aged 60. He was senior attending surgeon at St. Luke's Hospital and director of Marshall Field & Company's medical bureau.

CHARLES SPROC*, Oak Park, who graduated at the Chicago College of Medicine and Surgery in 1913, died July 25, aged 66. He was a member of the staff of Lutheran Deaconess Hospital.

WINSTON HARRIS TUCKER*, Evanston, who graduated at the University of Chicago School

of Medicine in 1934, died August 3, aged 57. He had been Commissioner of Health in Evanston since 1937 and director of housing since 1956. He was a professorial lecturer on public health at the University of Chicago and other institutions; past president of the Illinois Public Health Association and the Northern Suburban Medical Society; member of the state advisory group on polio vaccine and immunization programs, and chairman of the Chicago Medical Society Tuberculosis Control Committee.

*Indicates member of the Illinois State Medical Society



The neurotic pet owner

Small animals hospitals owe a substantial part of their sustenance to a special brand of neurotic pet owner. The most neurotic pet owner is the one who maintains his animal exclusively as a pet. It has no other function but that of a pet. It is not a work animal even in the smallest sense—not a hunting companion, not a watch dog, a protector of property, a baby tender—just a pure and simple pet. Pet owners whose pets have at least some of these minor functions are much less likely to be neurotic. Furthermore, these special pet owners do not keep pets simply because they enjoy them. The fact is they need them as a solace to their loneliness, as a sublimation to their shortcomings or failures, as a balm to their shattered egos in their unsuccessful struggles with life. This does not mean these people are mentally ill. But it certainly does mean that they are mentally disease-prone. The

pet serves as a palliative that assists the neurotic in making a serviceably sound adjustment to life.

There are lonely people, both young and old, who cherish their pets with a voracious devotion. There are the failures who relish being looked upon as a minor deity by a faithful, scraggly pet. There are the disenchanters and the criminals and the murderers who look upon their pets as the only truly honorable beings, and they treat them with a tender delicacy. The feeling of a neurotic for his pet is deep-rooted because in the pet the neurotic often has personified his deepest and highest aspirations in life. The pet becomes for him the embodiment of the highest possible attainable virtue. That is one of the reasons why restrictive ordinances regarding pets are combated with so much vigor, and why the antivivisectionists rant with such vitriolic irrationality. *A. Barton, D.V.M. The Neurotic Pet Owner. Philadelphia Med. June 6, 1958.*

The deductible approach

To get the most recent information on deductibles and co-insurance, a questionnaire was sent to the Blue Cross plans in the United States this summer; 60 responded. Twenty-nine of these do not offer either a deductible or co-insurance agreement. The reasons given most frequently were: lack of public demand, belief in the service benefit principle, union disfavor, burden to hospitals, little effect on admissions, agreements already have built-in co-insurance. Two of the 28 had offered deductible contracts but discontinued them because of public apathy and hospital objections. Twenty-six plans offer deductible agreements. Twenty-one of these employ a per case, per admission, or per year deductible; five a daily deductible; two require the patient to pay the first two days' room and board charges. Eleven plans offer agreements incorporating various co-insurance features. As may be expected, from these 31 plans there were varying reports and

opinions as to the value and effect of their contract provisions. Most reported some decrease in admissions and an increase in average length of stay. Some feel that the principle has been accepted reasonably well, others find little acceptance, a few frankly wish they hadn't become involved.

From time to time the deductible approach has been suggested as a possible help to doctors in keeping patients out of the hospitals who don't belong there. The unfortunate truth is that an economic control is unselective. If it is strong enough to serve as a deterrent to those who want to be hospitalized but need not be, it also discourages action on the part of those who should be under a doctor's care and in the hospital. Can we remove the economic barrier to medical care by re-introducing it? There are indications that the American public may not agree to apply the deductible principle to most areas of medical care. *L. E. Irwin. Efficient Use of Hospitals. Pennsylvania M.J. June 1958.*

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Yes, there are banks for cash and valuables

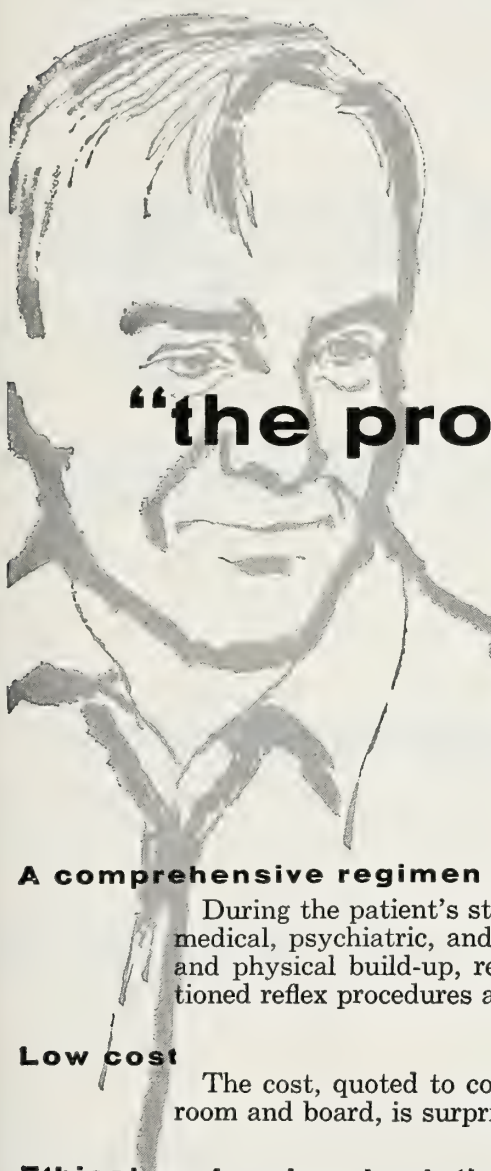
From Dr. O. W. Knewitz of Belleville comes a newspaper clipping accompanied by a suggestion that it be reprinted "as there may be some more M.D.'s who do not know what banks are for."

The news item reported that police authorities in San Antonio, Tex., were holding a 34-year-old man accused of stealing \$23,000 from the wall safe in the office of a downstate Illinois physician. The alleged loot consisted of \$9,500 in cash and \$13,400 in checks and securities.

The man under arrest had stayed with the physician while seeking work. One day when alone he removed the safe from the wall, packed it in his car and drove off. Safely away in another state, he stopped and broke open the safe. The thief was kind enough to return the checks and securities to his benefactor, but police say he kept the cash for his trouble.

Common duct injuries

That may sound trite, but we have had so far this year, from one Pennsylvania community, eight injuries of the common duct. It is one of the greatest tragedies that can occur to a person unless the injury is recognized at once and direct anastomosis made. Any operation at a later time is fraught with grave danger, not only from the standpoint of what you can accomplish but the great danger to the patient's life. I think the panel is in agreement that the patient who has gallstones, if he is in reasonably good health, is better off to have the gall bladder out. If you wait, the older the patient gets the greater is the risk of operation. A woman forms gallstones as a rule during pregnancy. They may not give rise to symptoms at that time, although frequently women may have their first attack during pregnancy and then not have another for a long time after that. *I. S. Ravdin, M.D. Summary-Symposium on Surgical Aspects of Biliary Tract Disease. Maryland M.J. Jan. 1958.*



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BOOK REVIEWS

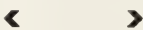


LIVER:STRUCTURE AND FUNCTION, Hans Popper, M.D. and Fenton Schaffner, M.D. \$20.00. Pp. 777. New York, The Blakiston Division McGraw-Hill Book Company, Inc.

The authors state in the preface, "Despite the efforts of clinicians and pathologists, the task of correlating the clinical manifestations of liver diseases, the functional derangements as recognized in the laboratory, and the morphologic alterations remains unfinished." Nevertheless, this book offers a vast amount of material on this organ which will repay the concentration needed to digest it.

The chapters cover the anatomy of the liver, its metabolic functions, and pathology. The microscopic views are excellent, the bibliography enormous, and the index is adequate.

C.P.B.



OUTLINE OF ORTHOPEDICS. John Crawford Adams, M.D. 2nd ed. \$8.00. Pp. 428, Baltimore, Williams & Wilkins Co., 1958.

The author describes a rigid routine that is never waived. Examination is only after exposure. It consists of inspection, palpation, determination of cause, measurements, estimation of fixed deformity, movements, power, stability, function, sources of referred symptoms, and radiographic examination.

"History" is mentioned over and over and the

patient's account of his ailment is never discounted. Dr. Adams believes that most orthopedic operations fall into the category of luxury rather than life saving procedures. If there is indecision as to treatment, it is "wise to err on the side of nonintervention."

This is excellent material for the student, physical therapist, and orthopedic nurse and provides a quick reference work for the practicing physician. It is well indexed.

C.P.B.

BOOKS RECEIVED

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be received as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

A DOCTOR SPEAKS HIS MIND. By Roger I. Lee, M. D., Little, Brown and Company, Boston and Toronto. \$3.00.

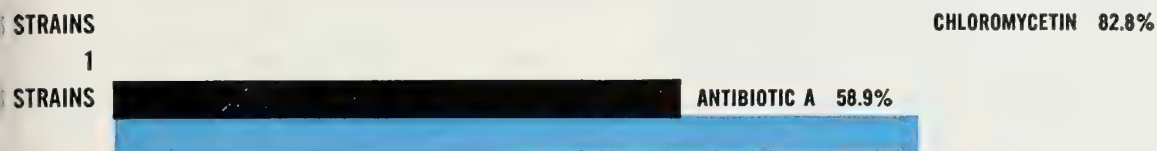
CIBA FOUNDATION COLLOQUIA ON ENDOCRINOLOGY. Volume 12. Hormone Production in Endocrine Tumours. Editors for the Ciba Foundation, G. E. W. Wolstenholme, O. B. E., M. A., M. B. Ch. and Maeve O'Connor, B. A. 58 illustrations and cumulative index to Volumes 1-12. Little, Brown and Company, Boston. \$9.00.

ETIOLOGY AND TREATMENT OF LEUKEMIA. Proceedings of the First Louisiana Cancer Conference. Edited by Walter J. Burdette, Ph. D., M. D., F. A. C. S., Professor and Head of the Department of Surgery and Director of the Laboratory of Clinical Biology, University of Utah College of Medicine. The C. V. Mosby Company, St. Louis. \$4.00.

DRUG ADDICTION: Physiological, Psychological, and
(Continued on page 68)

IN VITRO SENSITIVITY OF SEVEN GRAM-NEGATIVE PATHOGENS TO CHLOROMYCETIN AND TO ANOTHER WIDELY USED ANTIBIOTIC*

ESCHERICHIA COLI



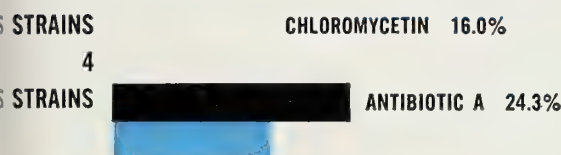
AEROBACTER AEROGENES



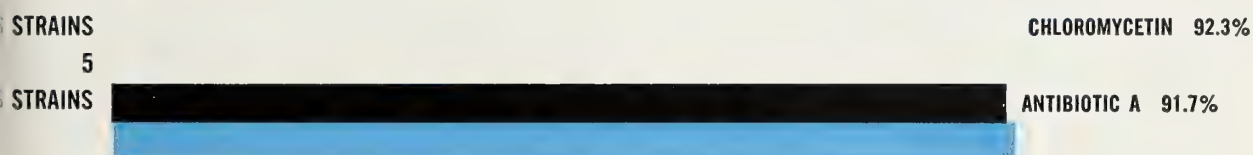
BACILLUS PROTEUS



B. PYOCYANEUS



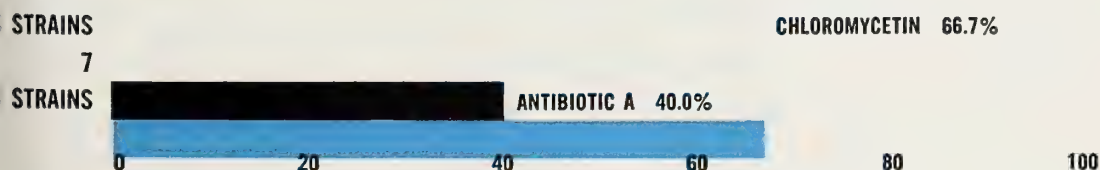
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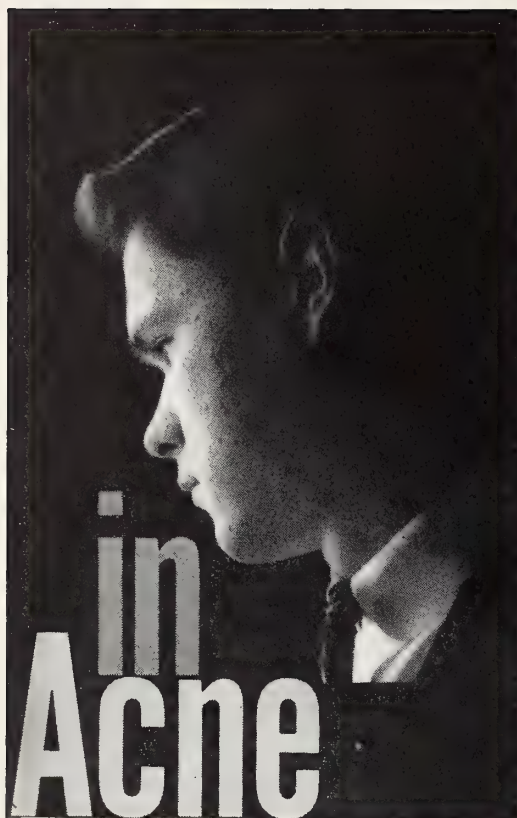
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1. Hodges, F. T.: *GP* 14:86, Nov., 1956.

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BOOKS RECEIVED (Continued)

- Sociological Aspects. By David P. Ausubel, M. D., Ph. D., Bureau of Educational Research, University of Illinois. Random House, New York. 95c.
- SON OR DAUGHTER BY CHOICE. A Guide to Sex Predetermination in Humans and Animals. By August J. vonBorosini, Sc. D. Published by E. F. Steinmetz, Keizersgracht 347, Amsterdam, Printed in the Netherlands. \$6.00.
- NEW STEROID COMPOUNDS WITH PROGESTATIONAL ACTIVITY. Annals of the New York Academy of Sciences. Volume 71, Art. 5, Pages 479-806. Otto V. St. Whitelock, Editor in Chief.
- HEALTH YEARBOOK, 1957. Compiled by Oliver E. Byrd, Ed. D., M. D., F. A. P. H. A., Professor of Health Education, Stanford University. Stanford University Press, Stanford, California. \$5.50.
- SIR CHARLES BELL, His Life and Times. By Sir Gordon Gordon-Taylor, K. B. E., C. B., F. R. C. S., Honorary Consultant Surgeon to the Middlesex Hospital and E. W. Walls, M. D., Ch. B., B. Sc., F. R. S. (Ed.), S. A. Courtauld, Professor of Anatomy, in the University of London at The Middlesex Hospital Medical School. E. & S. Livingstone Ltd., Edinburgh and London, \$8.50.
- HOW TO LIVE WITH DIABETES. By Henry Dolger, M. D., Chief, Diabetes Clinic, Mt. Sinai Hospital, New York, and Bernard Seeman. W. W. Norton & Company Inc., New York, \$3.50.
- DISEASES OF THE ESOPHAGUS, Illustrated. Authors: J. Terracol, Professor of the Faculty of Medicine of Montpellier, France, and Richard H. Sweet, Associate Clinical Professor of Surgery, Harvard Medical School. 682 pages. W. B. Saunders Company, Philadelphia and London, \$20.00.
- FIBROMYOMAS OF THE UTERUS. Edited by Robert A. Kimbrough, M. D., Paul H. Hoeber, Inc., Medical Book Department of Harper & Brothers.
- THE ESOPHAGUS, Medical and Surgical Management. By Edward B. Benedict, M. D., F. A. C. S., Assistant Clinical Professor of Surgery, Harvard Medical School, Endoscopist, Massachusetts General Hospital, and George L. Nardi, M. D., F. A. C. S., Clinical Associate in Surgery, Harvard Medical School, Assistant Surgeon, Massachusetts General Hospital. Foreword by Edward D. Churchill, M. D., F. A. C. S. 16 color plates and 108 black and white illustrations. Little, Brown and Company, Boston and Toronto. \$15.00.
- THE MEDICAL ASSISTANT — A Guidebook for the Nurse, Secretary, and Technician in the Doctor's Office. By Miriam Bredow, Dean of Women, Eastern School for Physicians' Aides, New York. \$7.50.
- PHYSICAL DIAGNOSIS. By F. Dennette Adams, M. D., Physician, Board of Consultation, Massachusetts General Hospital; Consultant to the Surgeon General, U. S. Army; Consultant to Boston and Bedford, Mass. Veterans Administration Hospitals; formerly Assistant Clinical Professor of Medicine, Harvard Medical School. Fourteenth Edition. The Williams & Wilkins Company, Baltimore. \$12.00.

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**NERVOUS and MENTAL
DISEASES**



Edward Ross, M.D., Medical Director
BATAVIA PHONE
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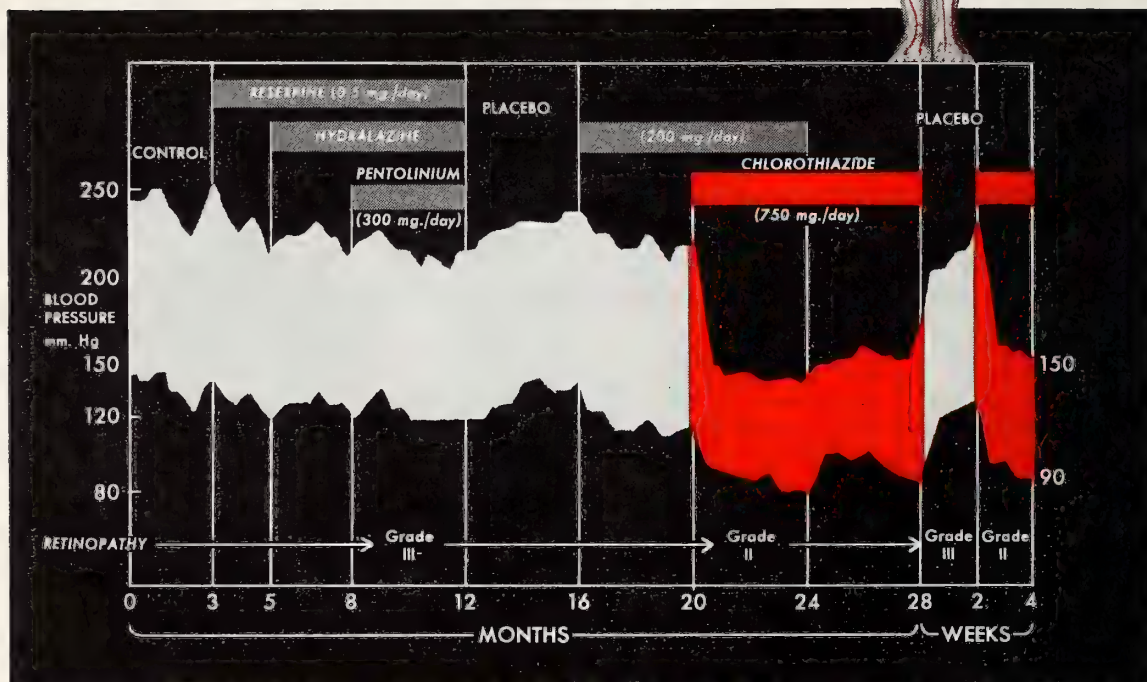
after investigator reports

Wilkins, R. W.: New England J. Med. 257:1026, Nov. 21, 1957.

"Chlorothiazide added to other antihypertensive drugs reduced the blood pressure in 19 of 23 hypertensive patients." "All of 11 hypertension subjects in whom splanchnicectomy had been performed had a striking blood pressure response to oral administration of chlorothiazide." "... it is not hypotensive in normotensive patients with congestive heart failure, in whom it is markedly diuretic; it is hypotensive in both compensated and decompensated hypertensive patients (in the former without congestive heart failure, it is not markedly diuretic, whereas in the latter in congestive heart failure, it is markedly diuretic). ..."

Freis, E. D., Wanko, A., Wilson, I. H. and Parrish, A. E.: J.A.M.A. 166:137, Jan. 11, 1958.

"Chlorothiazide (maintenance dose, 0.5 Gm. twice daily) added to the regimen of 73 ambulatory hypertensive patients who were receiving other antihypertensive drugs as well caused an additional reduction [16%] of blood pressure." "The advantages of chlorothiazide were (1) significant antihypertensive effect in a high percentage of patients, particularly when combined with other agents, (2) absence of significant side effects or toxicity in the dosages used, (3) absence of tolerance (at least thus far), and (4) effectiveness with simple 'rule of thumb' oral dosage schedules."



In "Chlorothiazide: A New Type of Drug for the Treatment of Arterial Hypertension,"

Hollander, W. and Wilkins, R. W.: Boston Med. Quart. 8: 1, September, 1957.

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3 ADJUST DOSAGE OF ALL MEDICATION. The patient must be frequently observed and careful adjustment of all agents should be made to determine optimal maintenance dosage.

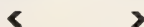
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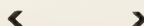
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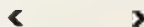
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The Month in Washington



Washington, D.C.—When the Congress that is elected in November goes to work next January 7 it will have before it a half dozen important health-medical issues that the last Congress took some interest in but didn't resolve. They include hospitalization under social security, tax-deferment on annuities, loans and mortgage guarantees for hospitals and nursing homes, aid to medical schools, and amendment of Veterans Administration's hospitalization procedures.

The issue of hospitalization under social security—the Forand bill principle—will come into the spotlight shortly after the new session starts. Under instructions from the House Ways and Means Committee, the Department of Health, Education, and Welfare will complete a study on the problems of financing hospital care for the aged before next February 1. Some study of medical costs also may be included.

Decision to move ahead with a study of medical care costs for the aged was reached by the committee at the same time it excluded the Forand idea from the social security bill enacted during the summer. HEW was told to pay particular attention to the possibility of increasing OASI taxes, and with the money to purchase health insurance (nonprofit or commercial) to take effect upon retirement or disability. This would differ from the Forand plan in that health care would be financed through insurance, and not paid for directly by the Federal government.

The Keogh bill to allow doctors and other self-employed to defer income taxes on money put into retirement funds passed the House with

very little opposition, but encountered difficulty in the Senate. It was defeated there in the closing days, and under unusual circumstances. Policy committees of both parties decided to oppose the bill as too costly, and the vote came in the course of a complicated legislative maneuver that could not be used as a test of whether individual Senators favored or opposed the bill itself.

Keogh bill sponsors, however, are encouraged that 32 Senators resisted official party instructions and stayed with the pension plan. They are confident that next year under more favorable legislative circumstances the measure will clear the Senate.

An effort was made late in the session to authorize grants to medical schools for building and equipping teaching as well as research facilities. The bill extending the research grants program also would have allowed use of the grants for "multi-purpose" structures (teaching and research) if emphasis were on research. However, for fear this change would hold up the simple extension bill, it was dropped off before the bill reached the House floor. Sponsors of aid to medical education will be back next year and campaign on this issue alone.

Legislation for U.S. guarantee of nursing home mortgages, strongly supported by the American Medical Association, fell by the wayside in the House during the closing hours of the session, after having cleared the Senate with no trouble whatever. This also will be pushed next year, and may have a better chance of pas-

(Continued on page 34)

why all the fuss over potassium?



Many physicians will recall when safe but potent organomercurials were first introduced. At the time there was considerable worry about possible potassium loss. Patients were instructed to take foods rich in this mineral, and not infrequently potassium supplements also were advised. After enough experience was gained, it became evident that only the exceptional case could lose enough potassium to be concerned about. And with oral organomercurial diuretics this was practically never a problem.

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clinical experience with nonmercurial diuretics indicates most of them have such a specific effect on potassium that with their use very real problems must be faced. Enough potassium loss can lead to digitalis toxicity or to a classical overt hypopotassemia. Since a fair percentage of cardiacs who receive diuretics are also digitalized, this excess potassium excretion is clinically serious. Clinical experience is still too limited with some nonmercurial diuretics to say just how often such loss will occur—but warnings already have been sounded by some clinical investigators as to the need for potassium supplementation.

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WASHINGTON (Continued)

sage because of the growing emphasis on need for solving the problems of the aged.

Far too late for passage, Chairman Olin Teague's House Veterans Affairs Committee reported out a bill that would make a number of changes in VA hospitalization procedures, liberalizing some, and tightening up on others. The bill also would require VA to open 5,000 beds over which Mr. Teague and VA Administrator Whittier have been squabbling for months, the latter maintaining that the beds aren't needed. That issue still is unresolved, inasmuch as the bill didn't pass.

Congress did roll out a sizable list of medical-health laws. It ordered the calling of a 1961 White House Conference on the Aging, gave Food and Drug Administration authority to enforce its pre-testing standards on foods to which chemicals and other substances have been added, authorized loans as well as grants under the Hill-Burton program, authorized grants for the country's schools of public health and for civil defense

purposes, raised military and VA physicians' pay, and required labor and management health and welfare plans to make reports and open up their books for inspection by members.

The AMA persuaded the Department of Defense and the administration to retain the post of Assistant Secretary (health and medical) in the reorganization of the department. In legislation passed by Congress to bring about the reorganization, one of the assistant secretary posts would have been eliminated, and the medical assistant was marked for downgrading. However, Secretary McElroy eventually announced that the position would be continued.

Even before Congress adjourned, it was clear that trouble was in sight for Medicare because of inadequate appropriations and instructions from Congress not to exceed the appropriation. To keep within the limitation, if possible, Defense Department was channeling many thousands of service families to military facilities, and at the same time limiting the scope of care permitted in civilian facilities.

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OCTOBER, 1958
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Surgical Problems in Occlusive Peripheral Arterial Disease

JAMES M. KANE, M.D., AND FRANK V. THEIS, M.D., CHICAGO

TREATMENT of occlusive peripheral arterial disease in recent years by direct surgical technique has been an encouraging surgical development. While replacement grafting for resected arterial aneurysms and traumatic injuries of the larger vessels has been successful, attempts to restore patency in occlusive peripheral arterial disease by various direct surgical procedures have been disappointing^{9, 13, 18, 21}. This discussion considers some of the problems confronting the surgeon in the surgical treatment of peripheral arterial occlusive disease in the lower extremities.

SELECTION OF CASES

Routine physical examinations, especially those made on patients with symptoms of peripheral circulatory deficiency, should include competent examination of the arterial pulses. When the femoral pulses are absent and symptoms are located in the gluteal region, an aortogram will demonstrate obstruction in the aorta or iliac arteries¹¹. When good femoral artery pulsations are present and symptoms are localized to the lower leg, a femoral arteriogram is indicated. In evaluating arteriography, special attention should be given to: the site of the

block; the extent of the occlusion; and the presence of a patent distal vessel for adequate run-off of the smaller vessels¹⁶. If the distal vessel does not visualize on closed arteriogram, an operative popliteal arteriogram may show distal tree patency¹. However, if the arteriogram demonstrates the vessel is not patent direct surgery is not indicated^{1, 15}.

SURGICAL PROCEDURES

Various surgical methods are available to improve peripheral circulation, either indirectly as with lumbar sympathectomy, or directly, as with endarterectomy or grafting. These methods may be used in combination; lumbar sympathectomy is advised before or after direct surgery or prior to arteriography^{1, 10, 15}.

The success of lumbar sympathectomy in the treatment of selected cases of occlusive arterial disease of the lower extremities has been reported by Theis,²⁰ and others^{1, 8, 10}. In extensive peripheral arteriolar occlusion this procedure is the safest and most practical means to increase collateral circulation. With segmental main-stem disease, the more direct method of treatment has been advocated^{2, 3, 4, 6, 7, 10, 15}. Although a few surgical centers continue to advocate endarterectomy in peripheral vascular occlusive disease^{1, 22, 23}, the procedure is no longer generally accepted because of the poor results due to recurrent thrombosis.

Presented before the Clinical Meeting of the Chicago Surgical Society at Cook County Hospital on March 7, 1958.

Numerous types of arterial grafts are being used, such as autogenous veins, homologous arteries, and synthetic prostheses^{4, 6, 7, 11, 12, 17, 19}. The obvious advantage of plastic fabrics is their availability in various sizes and forms and their inexpensiveness; numerous crimped synthetics are obtainable with nylon, dacron, and orlon being the most popular. Some surgeons have been more successful with venous autografts^{9, 11} while others prefer a homologous artery^{6, 14, 18}. In Jahnke's⁹ follow-up of acute Korean battle injuries, five out of seven homografts occluded, whereas only nine out of 19 venous autografts thrombosed.

Many problems are encountered in the technique of graft operations. The site that is selected for anastomosis should be relatively free of disease in order to make suturing easier and to insure maximum inflow and outflow of blood. Before suturing a synthetic prostheses, the end fibers must be seared by heat to prevent fraying. Tension at the site of an anastomosis and torsion of the graft must be avoided. In suturing the anastomosis, difficulty may arise in handling the diseased vessel. The suture needle should enter the arterial wall from the intima side to avoid dislodging an arteriosclerotic plaque or separating the intima from the media. Crimped grafts are less difficult to anastomose than are the more rigid fabrics⁴. The end-to-side anastomosis, originally described by Kunlin¹³ in France, and popularized by Linton¹⁴ in the United States, has proved the most successful. As recommended by Crawford⁴, Julian¹¹, and Linton¹⁴, the use of anticoagulants is limited to injection of heparin into the distal segment at the time of surgery. These authors feel that adequate blood flow through the graft is more important in preventing thrombosis than is the continued postoperative use of anticoagulants which may cause hemorrhage around the graft.

DISCUSSION

Chronic obliterative arterial disease, in which symptoms of vascular insufficiency are seen most often in the lower extremities, affects to a variable degree a large number of our population. The disease is progressive and until medical therapy is developed to halt its course, direct surgery will be only a temporary palliation¹. The vessel adjacent to a grafted segment frequently is involved in the primary disease (Figures 6 and 7). This

was pointed out by Szilagyi and his group¹⁸ in their analysis of the causes of late failure with arterial graftings in 120 cases.

Grafting of the aorta and the iliac vessels is a practical solution in the treatment of segmental occlusion of these large vessels. However, arterial grafting below the inguinal ligament has not given the same degree of success¹⁰. The difference in the results is due to many factors, most of them related to the smaller size of the vessel and the decreased blood flow.

While a particular type of conduit, the individual technique, or the overall systemic nature of the disease might be considered the cause of the poor results, Jahnke's studies indicate that these factors do not explain all the failures. After restudying 115 major acute arterial repairs from the Korean conflict, he noted that late occlusions occurred in 33 cases. In 63.6 per cent of cases with thrombosis no obvious etiologic basis for the failures could be found⁹.

CASE REPORTS

Four recent cases (Figure 1), with occlusive peripheral arterial disease are presented to demonstrate the immediate problems of arterial grafting that occur at the time of surgery. The following cases had angiography prior to surgery and were considered suitable for grafting.

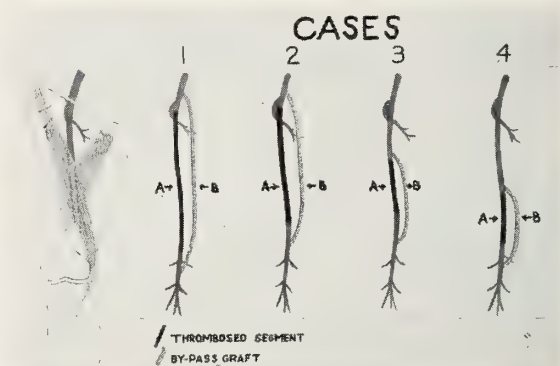


Figure 1. Diagrammatic sites of (A) occlusion and (B) by-pass graft in four cases: (1) occluded superficial femoral artery grafted from the common femoral artery to midpopliteal artery; (2) occluded superficial femoral artery grafted from the common femoral artery to proximal popliteal artery; (3) occluded lower one-half of superficial femoral artery grafted from the proximal midfemoral artery to the proximal popliteal artery; (4) occluded distal superficial femoral artery and proximal popliteal artery grafted from the lower superficial femoral artery to the midpopliteal artery.



Figure 2. Arteriogram of case 1 showing (A) non-visualization of the superficial femoral artery; and (B) the patent distal popliteal artery (lower arrow). The run-off of the smaller vessels appears adequate.

Figure 3. Arteriogram of case 2 showing (A) non-visualization of the superficial femoral artery; and (B) the patent first part of the popliteal artery.

Case 1. A 66 year old white male was admitted to Cook County Hospital on January 2, 1958, with a one year history of progressive intermittent claudication of the left calf. Femoral artery pulsations were palpable bilaterally but all distal pulses were absent. Arteriogram revealed the segmental occlusion (Figure 2). Direct surgery was performed on January 27, 1958, after lumbar sympathectomy. An Edwards-Tapp crimped nylon graft was placed from the common femoral artery to the midpopliteal artery. A good back flow was obtained from the distal anastomosis but with completion of the proximal anastomosis the distal one-third of the graft failed to pulsate. Repeated efforts were unsuccessful in establishing blood flow through the graft.

Case 2. A 65 year old white female with a four week history of pain in the sole of the left foot while walking, was admitted with impending gangrene of the left foot. Good arteriograms were obtained (Figure 3). Femoral artery pulsations were palpable bilaterally but all distal pulses were absent in the left leg. A by-pass crimped nylon graft was inserted from the femoral artery to the popliteal artery after a preliminary sympathectomy but thrombosis occurred and the distal pulses were not restored.

Case 3. A 57 year old white male was admitted January 8, 1958, with a history of progressive intermittent

claudication in the calf muscles of one month's duration and discoloration of the toe of the right extremity for two weeks, (Figure 4). Examination revealed bilateral common femoral artery pulsations but absent distal pulses. Femoral artery by-pass was performed January 20, 1958, using an Edwards-Tapp crimped nylon graft. Good back flow followed the distal anastomosis; however, as in the previous cases, the graft failed to function after the proximal anastomosis. Lumbar sympathectomy was then performed.

Case 4. A 63 year old white male was admitted December 14, 1955, because of what was diagnosed as latent effect of frostbite to the right foot and a gangrenous toe was amputated. On September 15, 1957 right lumbar sympathectomy was performed. This was followed by minimal temporary improvement. Within nine weeks, two toes became gangrenous and the foot edematous. A femoral by-pass homograft was inserted November 22, 1957. This failed to function at the close of surgery.

COMMENT

In these four cases, the end-to-side by-pass grafting operation was performed. Three were crimped nylon grafts and the other was a homograft. All had heparin instilled in the distal



Figure 4. Arteriogram of case 3 with (A) nonvisualization of the distal superficial femoral artery; and (B) patent proximal popliteal artery. The occluded segment measured 15 cm.

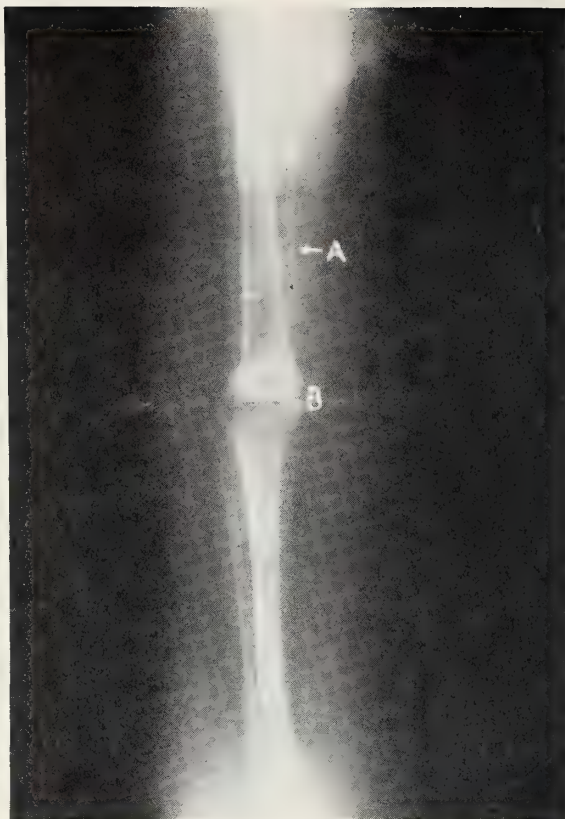


Figure 5. Arteriogram of case 4 showing (A) failure of 15 cm. of the distal femoral and proximal popliteal arteries to visualize; and (B) the patent mid-popliteal artery (lower arrow).



Figure 6. Photograph of (A) the popliteal vessels distal to the anastomosis showing the muscular walled patent artery; and (B) two accompanying veins.

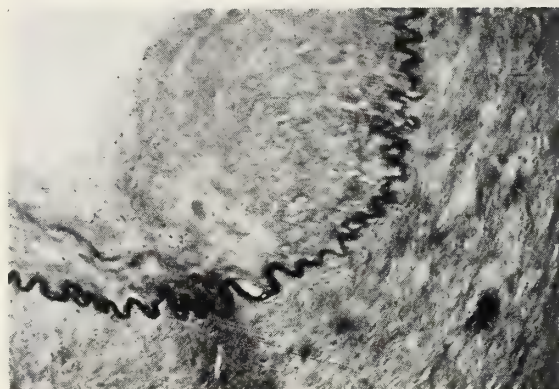


Figure 7. High power photomicrograph of blocked segment of the popliteal artery of Figure 6A showing extensive subintimal atherosclerotic plaque.

segment during the anastomosis operation. None of the patients was diabetic. Case 3 had the nylon graft inserted prior to lumbar sympathectomy. Only case 4 required amputation.

SUMMARY

Our present knowledge cannot predict the results of surgical therapy except where disease is advanced. If the patient with far advanced disease is not benefited by lumbar sympathectomy, direct surgical procedures probably will not be successful. The problems mentioned in this discussion, in addition to the recent evidence that an unsuccessful graft may have a deleterious effect on the collateral vessels, indicate the need for more careful selection of cases. In carefully selected case of occlusive arterial disease, direct surgery may be successful for segmental occlusion. Patients with gangrene prior to surgery are not good candidates for grafting.

Vessels of larger caliber have the greatest chance of success provided sufficient flow into a patent distal vessel with adequate run-off is present. When possible, grafts should be attached to relatively healthy segments of vessel. The end-to-side anastomosis is the most widely recommended method of grafting today. Collateral vessels in the area of the by-pass should not be disturbed. Lumbar sympathectomy should precede or be concomitant with the direct surgery.

CONCLUSIONS

Most peripheral occlusive diseases are part of a systemic disease. Effective medical therapy is needed to reverse the progressive course of the disease to obtain long term benefit from surgery.

In advanced cases of peripheral occlusive arterial disease, lumbar sympathectomy is the surgical treatment of choice with minimum risk to life or limb.

In segmental occlusive arterial disease, selected cases may be benefited by a graft by-pass operation if there is adequate blood flow to maintain the graft. Lumbar sympathectomy contributes to the success of the direct surgical procedure.

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The Relation of Cholecystectomy Complications to Inadequate Exposure and Technical Errors

JOHN T. SULLIVAN, JR., M.D., MILWAUKEE, WISCONSIN

Complete satisfaction with existing morbidity and mortality figures for any surgical procedure is not compatible with the ideals of medical progress. Constant revaluation and striving for still lower percentages is the aim of all those responsible for patients' safety and welfare. No patient finds comfort or satisfaction in the knowledge that his particular complication occurs only in "1 per cent of cases."

Today, more individuals are enjoying a satisfactory, symptom-free state of health following cholecystectomy than ever before¹. Continued progress in surgical technique, anesthesia, fluid and electrolyte balance, and antibiotics have all contributed to the safety of this procedure in competent surgical hands. Because of the large number of successful cholecystectomies, patients who suffer complications tend to be statistically hidden and their status as surgical invalids overlooked. This often is noted when reviewing reports on the problem of benign common duct stricture. The fact that the majority were at one time considered merely "a simple gall bladder case" frequently is forgotten. To each of these patients his predicament is a disaster, both physically and economically.

It is with this thought in mind that the following brief outline of proved basic surgical principles will serve as a guide in prevention of errors in gall bladder surgery^{2,3}.

NATURE OF DISASTERS

The following complications, although relatively infrequent, may lead to marked morbidity and even mortality and the majority may be considered preventable:

1. Injury and resulting stricture of the common duct⁴.

2. Ligation of the hepatic artery or one of its vital branches.
3. Slipped cystic duct ligature.
4. Portal vein damage.
5. Overlooked common and/or hepatic duct stones⁵.
6. Uncorrected pathologic ampulla of Vater⁶.
7. Cystic duct remnant syndrome^{7,8}.
8. Traumatic pancreatitis.

INVALIDISM RESULTING FROM COMMON DUCT STRICTURE

Once a common duct stricture has been established as a result of surgical trauma, a serious situation confronts the patient both as to his general health and economic status⁹. The problem confronting the surgeon cannot be considered as trivial.

In a series of 239 patients with common duct stricture, collected by Lahey and Pyrtok⁴, the following data support the term, operative disasters:

239 PATIENTS WITH COMMON DUCT STRICTURE (Lahey)

Average age	43.8 years
Ratio of females to males	3:1
Percentage due to operative trauma ...	81%
Operative damage recognized at time of cholecystectomy	4%
Number of operations elsewhere	417
Number of operations at Lahey Clinic ...	344
Total number of operations	761
Average per patient	3.1
Postoperative mortality	10%
Average length of life after unsatisfactory repair	25.5 months
Average length of life in patients having good results following repair	9.6 years

The pattern of events leading to death in patients with uncorrectable common duct stricture,

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consisting of severe icterus, hepatomeglia, liver failure, and repeated gastrointestinal hemorrhages, left little hope in their minds during the 25.5 month average length of life following unsatisfactory repair. Yet in the series mentioned above, 81 per cent were due to operative trauma during gall bladder surgery.

TECHNICAL ERRORS LEADING TO CHOLECYSTECTOMY COMPLICATIONS

It would appear superfluous to mention the importance of adequate pre-operative preparation of every patient undergoing cholecystectomy. Suffice it to say that such a patient should be in the best physical condition possible under existing circumstances. Recent improvements in anesthesia and fluid and electrolyte balance are greatly responsible for lessening postoperative complications.

At the onset of a cholecystectomy a frequent error that may set up a chain of events leading to a disaster is an inadequate skin incision. Each of the many types of incisions has advantages and disadvantages but care must be taken to fit the incision to the individual patient, not the patient to the incision. A somewhat too large incision is far safer than one that is somewhat too small. It is a dubious technical accomplishment to perform any major surgery through a small incision, especially when considering any compromise in exposure of vital structures. Sudden hemorrhage, abnormal regional anatomy, depth of operating field, and existing pathology are hazards to the surgeon and place him in double jeopardy when approached through an inadequate incision.

In this same category arises the problem of the absence of planned visceral retraction. Often an operator, eager to investigate the gall bladder, will push aside interfering viscera hastily and while complaining that his assistants are not giving him exposure starts dissecting. Frequently at this point the inadvertent severance of a vessel takes place. A few extra minutes utilized in a planned method of visceral retraction may mean the difference between good and poor exposure. One such method consists in applying warm moist laparotomy pads to the stomach and retracting in the direction of the left upper quadrant; similar retraction of the splenic flexure of the colon and loops of small bowel toward the left lower quadrant and the

hepatic colon toward the right lower quadrant. At this point gentle retraction to the patient's left with a narrow retractor over the duodenum will place the hepatic triad on a stretch; countertraction on the gall bladder will then allow dissection under tension and in a well exposed field. If hemorrhage or a slipped cystic duct occurs, panic can be avoided and correction under direct vision may be accomplished.

A third source of technical error is lack of recognition of abnormal regional anatomy^{10,11}. It is not within the scope of this paper to present the possible anatomical abnormalities in relation to the biliary system but anyone who removes a gall bladder should be aware of and familiar with them. Any text on surgical anatomy describes normal arterial and biliary patterns. Merely the awareness of these patterns will be an inducement for the operator to dissect carefully and to ligate structures only after positive identification. This alone would reduce inadvertent damage to the hepatic arteries and common duct.

Another factor that could lead to complications is failure to explore the common duct when so indicated⁵. The answer to the question, "Should every operator removing a gall bladder be able and willing to explore the common duct when the need arises?" is obvious.

The following may be considered indications for common duct exploration, based on the individual judgment of the case at hand:^{12,13}

1. Dilated or thickened common duct.
2. Palpable stones in the common duct.
3. History of previous or present jaundice.
4. Presence of small stones in the gall bladder.
5. Noncalculous gall bladder with biliary tract symptoms¹⁴.
6. Aspiration of cloudy or sandy bile from the common duct.
7. History or evidence of past pancreatitis.

Indications for transduodenal exploration of the sphincter of Oddi may be listed as the inability to pass a probe through the common duct into the duodenum due to:

1. Impacted stone in the ampulla of Vater.
2. Fibrosis of the sphincter of Oddi.
3. Neoplasm of the ampulla of Vater⁶.

Although failure to explore the common duct when indicated at the time of the original cholecystectomy may not result in operative disaster to the patient (except for operable neoplasms),

a second operation in the face of possible jaundice, liver damage, and localized adhesions usually is necessary. This fact will in turn lead to a higher morbidity rate, increased hospitalization, and economic strain.

Three other errors of surgical technique that may lead to complications of lesser degree are:

1. Cystic duct remnant syndrome has been recognized for some time^{7,8,15}. Nearly all the texts on surgical technique have emphasized the importance of correct ligation of the cystic duct at cholecystectomy. Tenting of the common duct by means of too great a traction on the cystic duct at time of ligation of the latter may result in common duct stricture. On the other hand, as a result of poor exposure, inadequate dissection, and surgical timidity, a long segment of cystic duct may be left giving rise to future biliary pathology⁸.

2. Failure to re-peritonealize denuded areas about the gall bladder fossa and hepatic triad and failure to provide drainage to the right upper quadrant.

3. Failure to perform an adequate abdominal exploration when conditions permit.

The second omission may encourage adhesions in the dissected area, causing symptoms at a later date or creating a dense adhesive maze to confront a future operator doing some other abdominal procedure. The simplicity of re-peritonealizing dissected areas justifies the few additional minutes of operating time required. An avenue of drainage for any bile oozing from the gall bladder fossa can be quickly and simply accomplished by use of a Penrose drain with exit through a small stab wound. Inserting the drain through a portion of the abdominal incision may weaken the peritoneal closure and be a focal point for incisional hernia.

The importance of an adequate abdominal exploration upon opening the peritoneal cavity should be self-evident. It is a golden opportunity requiring little time and may be of immeasurable benefit to the patient. In spite of a good pre-operative work-up, occasionally a pathologic gall bladder becomes secondary in importance to what is found at exploration.

SUMMARY

1. Satisfaction with low morbidity and mortality statistics following cholecystectomy fails to take into consideration the actual disaster, both

physical and economic, to the individual patient so involved.

2. Errors in surgical technique which may lead to disastrous complications are:

- a.) Inadequate skin incision.
- b.) Absence of planned visceral retraction and maximum exposure.
- c.) Unrecognized variations in biliary anatomy.
- d.) Failure to explore the common duct and sphincter of Oddi when indicated.
- e.) Leaving a long cystic duct remnant.
- f.) Failure to re-peritonealize and drain the right upper quadrant.

3. Complications of cholecystectomy, usually preventable, are:

- a.) Operative stricture of the common duct.
- b.) Ligation of the hepatic artery or one of its vital branches.
- c.) Slipped cystic duct ligature.
- d.) Portal vein damage.
- e.) Overlooked common and/or hepatic duct stones.
- f.) Uncorrected pathologic ampulla of Vater.
- g.) Cystic duct remnant syndrome.
- h.) Traumatic pancreatitis.

4. Cholecystectomy still is a major surgical procedure. Morbidity and mortality rates can be reduced further if the operator possesses the ability to meet any situation incident to biliary surgery.

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Psychosomatic Aspects of Ulcerative Colitis

A Review

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Simple ulcerative colitis was described in 1875¹, but no specific etiological factor has been found to account for its clinical manifestations. In 1930, Murray² first drew attention to the psychosomatic aspects of the disease. His preliminary studies were directed toward the personality of the patient, and indicated that the psychophysiological personality of the patient had a direct bearing upon the disease process. He found that in each of four patients whose life history was investigated, psychic trauma precipitated symptoms. He concluded that the deep-seated emotional conflicts accompanying ulcerative colitis are not easily solved. Infections, too, are influenced by emotional conflicts that can alter the course of the disease.

The main psychological features of patients with ulcerative colitis were fearfulness, emotional immaturity, abnormally strong attachment to the mother or mother substitute, and fear of marriage. Murray concludes: "If the pathological process has not progressed too far, thorough investigation of the patient's life and attitudes is indicated: this may afford opportunity for much needed psychotherapy."

Alexander³ in 1931 associated gastrointestinal

symptoms with the basic processes of life: the intake of substance and energy from the environment, its partial retention during the process of growth, and elimination of end products of metabolism. Psychopathologically, patients may be divided into three types: gastric, diarrheic, and constipative. The gastric type has intensive wishes against which he fights; he says, "I do not want to take or to receive. I am active, efficient, and have no such wishes." The patient prone to diarrhea feels he has the right to take because he "always gives sufficiently." This "giving" of feces serves as a substitute for giving of real values. The constipated patient feels he does not need to give because he has not taken or received, and fights against an "obligation to give."

According to Alexander⁴, the first symptom of ulcerative colitis frequently appears when the patient is faced with a life situation requiring action for which he feels unprepared. A disturbance in toilet training creates conflict. The basis of the infant's emotions is the giving up of a cherished possession on the one hand, and an accomplishment on the other. The conflict may result in organic disease later in life.

Szasz⁵ explains the physiological interrelations between feeding and the lower gastrointestinal

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tract activity as follows: During periods of hunger [increased vagal activity], the large bowel is inhibited. Upon satisfaction of hunger [decreased vagal activity], activation of the colon and rectum ensues. Chronic [psychological] stimuli that result in either increased vagal activity or inhibition may produce what may be regarded as exaggeration of the normal pattern. As a result, chronic vagal inhibition of the large intestine will result in constipation and chronic stimulation in diarrhea. Because of the difference between the anus [under voluntary control] and the peristaltic activity of the colon [not under voluntary control], Szasz defines the psychological factors which can cause abnormal symptoms in each. Colonic dysfunction will cause vegetative neurosis; and dysfunction of the anal sphincter, hysterical conversion.

Wittkower⁶ studied the personality of 40 unselected cases of ulcerative colitis, based on questionnaires and interviews. He divided the patients into four major groups. The 17 patients in the first group seemed overly conscientious and scrupulous; they were energetic and efficient, and tense in life situations. Their primary aim seemed to be the achievement of safety and security, and rigidity was shown mostly in relation to sex and religion. These patients were bottled up and unable to express emotions. They showed marked attachment to a mother figure. Psychopathologically, they were of the obsessive-compulsive type.

The second group, 12 women, were stubborn and argumentative. In general, they seemed to be the happy-go-lucky type; they were overdressed, usually looked younger than their age, had many friends, and generally tried to be in the center of things. They too showed marked attachment to a mother figure, and their idea of love and sex was rather distorted. Psychopathologically, they leaned toward hysteria.

The third group, six patients, were unassuming, polite, and anxious not to hurt anyone's feelings. They had a marked inferiority feeling and were often depressed. Psychopathologically, their personality was schizoid. Group four, five patients, did not fit into any of the above groups.

There was much overlapping, but the author considers the difference significant enough to warrant the distinction. He noted that these patients had a higher education than the average

hospital patient. Of the 40 patients, 28 had emotional trauma as a precipitating factor of the disease. In conclusion, the author states that though there is a definite psychopathological pattern in these patients it is not specific enough to enable us to define an ulcerative colitis personality.

Sullivan⁷ analyzed 15 of a total of 25 cases of ulcerative colitis. The onset in the majority occurred between the ages of 20 and 30. He thinks there is a close association between ulcerative colitis and neurogenic diarrhea. The bloody diarrhea seen in ulcerative colitis often is related to emotional episodes causing autonomic imbalance, as seen from the dilatation of the pupils and increased pulse rate. As a result of the imbalance, the liquid content of the small intestine rushes down into the colon. The enzymes in this intestinal fluid are of higher digestive powers than those of the colon; thus, the natural protective power of the colonic mucus may be overcome. The chronicity of the emotional difficulty causes irritation that results in chronic ulcerative colitis. Treatment consists of relieving the emotional pressure that is discharged through the gastrointestinal tract by allaying the conflict verbally [emotional catharsis], enabling the patient to achieve a better equilibrium with his environment.

A different explanation on the possible action of chronic emotional stress is given by Lium⁸. Chronic anxiety leads to prolonged spasms of the muscularis of the colon, resulting in ischemia of the mucosa. This in turn causes small necrotic lesions of the epithelium which, on relaxation of the spasm, will bleed. Spasm does not subside completely so that the epithelium is insufficiently supplied with blood and healing is interfered with. Since anxiety is chronic, bleeding persists.

Daniels^{9,10} writes that the reasons the colon responds as it does to critical increase in anxiety cannot be discussed in purely psychological terms; they must also be sought in the physiological and biochemical matrix of the individual and his gastrointestinal tract. The psychoanalytical investigation cannot resolve the enigma of organ selection, although it is possible that conditioning somehow creates local somatic sensitivity to future tensions. He points out, however, that emotional conflicts are only part of the picture of ulcerative colitis and that such

conflicts are causative factors only in part of the cases.

In another article, Karush and Daniels¹¹ come to the same conclusions. They selected two women, one single and the other married with two children, and spent 350 hours of continuous psychoanalytical therapy extending over a period of three years. They have tried to identify the dynamic emotional pattern, evaluate it in view of organ disturbance, and correlate the different emotional episodes with the severity and development of the disease. They stress that the illness meant not only achievement of an infantile goal, but the results of anger at the maternal authority. Sex became subordinate to their dependency struggle. Pure satisfaction could not be achieved since unconscious anxiety and guilt were always joined to the sexual needs, thus initiating and perpetuating the psychodynamical and pathophysiological defect which could possibly interfere with integrating activity of the cerebral cortex, subcortical centers, and cholinergic mechanisms of excitation. They conclude by predicting that through the combined efforts of the physiologist, the biochemist, and the psychiatrist, the mechanism of the physiopathological defect will be elucidated.

Lindemann¹² studied 45 patients with ulcerative colitis. In 26 there was a close time relationship between loss of an important person and the onset of the disease. Ten had ceased to interact with an important person because of delusion or rejection; 8 had had surgical procedures preceding the illness; in three, the disease was preceded by initial signs of psychosis. In addition to the well-recognized psychiatric background which Lindemann found in his patients, he emphasized that the technique of psychological management must avoid the traditional method of the psychoanalytical inquiry. The contact should then be brief, not permitting the development of regressive tendencies, hostile feelings, or affectionate attachment. The relationship should be an identifying one in which the patient copies behavior patterns of the psychiatrist and makes use of them in the same manner he previously did with the pattern of the person whom he lost. Lindemann¹³ also found that the common factor in all the situations is sudden decrease in the rate of interaction, the rate dropping to zero in the case of

bereavement by death and going to a low level in the case of rejection or disillusion.

Treating ulcerative colitis in children, Sperling¹⁴ described the psychoanalytical approach. The first case is described as a moody, irritable, uncommunicative child, interested only in his diet and stools. Sperling gained his trust from the start by allowing him all the forbidden foods which she brought to him personally on request. The mother was ambivalent toward the patient, and insisted upon the diet and keeping her child in the hospital. The analysis enabled the child to express his aggressive impulses and render his physical symptoms unnecessary. He got great satisfaction from playing one parent against the other, even though he craved security and a positive, consistent attitude from adults.

Sperling was mostly impressed with bleeding in ulcerative colitis. She speaks of the unconscious rage, the irresistible urge for immediate discharge which leads to the destruction and elimination of the mucosa of the colon. The degree of unconscious rage was proportionate to the quantity of blood present at one time. The choice of organ is determined by oral and anal succession, the colon being utilized for the eliminatory phase. Anorexia, vomiting, abdominal pain, and bleeding represent expression of and defense against aggressive incorporation of the frustrating object. As such, ulcerative colitis should be regarded as an organ neurosis with the pregenital conversion symptoms. Sperling finds that the child usually has been subjected to an ambivalent mother and to early and deep frustration. Thus, the youngster will have hostile attachment with strong oral and anal sadistic tendencies, and inability to tolerate psychic tension. In this disease, the complete absorption of the child by the illness is indicative of narcissism and the hospital may disrupt this situation. Sperling concludes that "only after sadism has been satisfied, exhausted, and changed by treatment, can the individual recover." She sees psychoanalysis as a possible remedy only if the mother is included in the therapy.

A study of ulcerative colitis in children between the ages of 6 and 16 was carried on by Prugh¹⁵. He studied the relationship between gastrointestinal symptomatology, emotional state, and type of play during treatment. The normal tot, at play, will act out his thoughts

and feelings and gains relief from inevitable emotional tension to which every boy and girl is subjected. Successful play demands a certain imaginative flexibility of the part of the normal child, which is missing in the ulcerative colitis patient who is rigid, dependent, and immature. Prugh's four diagnostic criteria in the ulcerative colitis patient are: the presence of a deep-seated, unresolved largely unconscious emotional conflict; the operation of a precipitating event or a combination of circumstances antedating the onset of gastrointestinal symptomatology by 24 to 48 hours and serving as a sort of trigger mechanism for the highly motile response; persistence of gastrointestinal symptoms constitute a partial solution of the emotional conflict. These are the secondary gains which the child gets from his illness. The existence of a source of previous gastrointestinal symptoms becomes pathogenic through later emotional conflicts. Prugh believes the hypothalamus mediates between stimuli that appear to lead to parasympathetic innervation and results in spasm of the large bowel, followed by ischemia of the mucosa, and leading to irreversible structural changes that were initiated by their emotional stimulus.

Grace¹⁶ showed the influence of emotional stimuli on the vascularity, tone, peristalsis, and the mucous secretion of the colon. He studied four colonic fistulas under various conditions and found that any emotion affected all of the above-mentioned factors, but that they were more sustained in patients with ulcerative colitis. Emotions like abjection, fear, and dejection caused hypofunction of the colon, pallor, relaxation, low contractivity, and a minimum amount of lysozyme. Conflicts such as anger, hostility, or anxiety led to hyperfunction of all the above-mentioned factors.

Paulley¹⁷ studied 173 patients and concluded that the emotional factor is of prime importance in ulcerative colitis. His series comprised twice as many women as men, and maternal dominance was a significant feature. He had a control group of 98 patients in whom the ulcerative type of personality was found in only five per cent.

Groen and Van der Walk¹⁸ summarize the psychosomatic hypothesis in ulcerative colitis as follows: Patients have a core in their personality that makes them more vulnerable than others to interhuman conflicts which threaten their emotional security; in acute cases colitis follows

gross offense and in the insidious ones, there is a series of minor offenses; emotional trauma is not discharged as a rule; the presence of emotional immaturity, dependence, sensitivity, egocentricity, and neurotic anxiety; the personality is infantile, dependent, and passive; there is a craving for affection, sympathy, admiration, and protection without giving much love and support to others; petty traits are frequent, such as exaggerated nicety in words and manners, quite a strong compulsiveness in domestic duties, and often a neat appearance; aggression, as often seen in children, who tend to play the role of an authoritative figure but desire to remain protected at the same time; neurotic disturbances in their psychosexual development [e.g., fear of getting married]; and every disease will cause regression but it is greater than in the person with ulcerative colitis.

Groen¹⁹ treats his patients with bed rest when necessary, but with a full diet and no drugs. He concludes that psychotherapy is essential and should not be put off.

Engel^{20,21,22,23,24} studied the somatic and psychogenic aspects of ulcerative colitis and stresses two points: the importance of diarrhea as the presenting symptom has been overemphasized, and the importance of bleeding as a presenting symptom. Somatic symptoms tend to appear when the disease is under control. He describes an inverse relationship between headaches and the severity of ulcerative colitis. When the patient starts to think about his problem, headaches become manifest. Data are given on 20 of 28 patients who suffered from headaches; 12 were free of headaches when they had colitis symptoms and invariably had headaches during remissions. Engel considers the most consistent psychological findings in these patients to be: a defect in the personality structure antedating the onset of the disease; a characteristic type of dependence and restrictive relationship with people; consistent psychopathology of the mother; and failure to achieve full heterosexual development.

SUMMARY

A review of the literature readily available reveals unanimity among authors in considering the psychophysiology of the patient of importance in the disease mechanism of ulcerative colitis. Some were impressed with a particular

type of personality of the ulcerative colitis patient^{2,14,15,18,20}. Others found that a certain type of life situation precipitates the disease or its exacerbations^{3,6,12,15,18}. A particular type of mother-patient relationship was stressed by several investigators^{2,6,14,17,20}. Others, more mindful of physiopathological mechanisms, were concerned with the hypothalamic and autonomic action on colonic function^{5,7,8,15,16,11}. Only one controlled study¹⁷ was found comparing the personality of ulcerative colitis patients with that of an unselected group of patients.

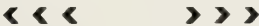
CONCLUSIONS

1. The psychophysiological personality of ulcerative colitis patients seems to have a direct bearing on the mechanisms involved in this disease.
2. More controlled studies are needed to confirm the claim of an ulcerative colitis personality present in a significant number of patients.

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Cost of medical education

Expenditures per student for undergraduate medical education, exclusive of the value of services contributed by the voluntary staff, were found under the terms of this project, to range from approximately \$2,400 to \$3,800, depending upon one's concept of the interrelationships between undergraduate education, research, house staff instruction, and patient care. Within this range, the Committee selected the provisional

figure of \$2,600 as being the most reasonable. This figure includes part of the cost of house staff instruction, representing the contribution of the house staff to the teaching program; part of expenditures for patient care; and a proportion of the expenditures from the university's general funds for medical research—all in addition to the expense of activities directly related to undergraduate instruction. *L. W. Knott, M.D. et al. The Cost of Medical Education: A Pilot Study. J.M. Educ. May 1958.*

Newer Concepts of Nutrition in Cardiovascular Disease

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THE steadily increasing breadth and scope of nutritional research transports it into all branches of medicine today. One of the most promising areas of research at present is the investigation of dietary factors in chronic degenerative diseases of the cardiovascular system. Until recently nutrition and cardiology textbooks limited discussions on diet in cardiovascular disease to sodium restriction and the maintenance of an adequate food intake in the patient with congestive heart failure, correction of vitamin deficiency in beriberi heart disease, and reduction of obesity. Today exciting new evidence is accumulating that emphasizes the importance of nutritional factors in the management — if not the etiology — of the most crucial of chronic cardiovascular diseases: hypertension, atherosclerosis, and thrombosis.

Salt restriction in the management of congestive heart failure was advocated by French physicians as early as 1901, though the relative significance of the sodium ion in comparison with chloride or water was not fully appreciated until Schroeder's report in 1941. Soon after, Kempner introduced his rice diet for the treatment of essential hypertension and its complications. Initially an empirical therapy, its success was soon recognized as due to the fact that it was low in sodium as well as in protein and fat. Proof that its hypotensive effect was due to sodium restriction alone was confirmed recently¹. In addition, it permits the use of a much less restrictive diet. Chlorothiazide was introduced in the past year as a hypotensive agent and the proposal has been made that its effectiveness depends upon its natriuretic effect. This brings us to the logical question of whether an excessive

salt intake may be of etiologic importance in the development of essential hypertension. This suggestion has recurred with increasing appeal in the past decade and has gained support in the past three years from animal, clinical, and epidemiological observations².

The twisting and turning of advised opinion in the past 15 or 20 years regarding dietary control of serum cholesterol, and hence presumably atherosclerosis, indicates that we should observe caution in accepting therapeutic concepts unproved by laborious clinical trial. It has not yet been clearly established that a cause and effect relationship between serum cholesterol and atherosclerosis exists or conversely that reduction of serum cholesterol will effect any significant improvement in the prognosis of the patient with atherosclerosis. The unsettled nature of this relationship is further complicated by the inability thus far to determine whether cholesterol, the cholesterol: phospholipid ratio, the S_{10-20} lipoprotein level, or the alpha lipoprotein: beta lipoprotein ratio of the serum is the more significant measure of the atherosclerotic tendency.

Nevertheless, ever since the cholesterol feeding experiments of Anitschkow in rabbits, voices have been raised against the consumption of cholesterol rich foods. As recently as 1953 Dock made such a plea. However, Ancel Keys demonstrated in a series of experiments begun in 1950 that the cholesterol level of dietary fat intake was of crucial importance in determining the serum cholesterol level³. Since the dramatic reports of Ahrens and others this has been modified by the fact that the quality of dietary fat is as important as its quantity in this regard⁴, though just why ingested vegetable oils differ from animal fats is not fully understood. While this would now seem to give us a simple dietary means of controlling serum cholesterol with no known danger to the patient, it has not been established how this might best be applied or

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While the Nutrition Committee of the Chicago Heart Association is sponsoring this article, the opinions expressed are those of the author and do not necessarily represent the official view of that committee.

how successful it might be in controlling atherosclerosis.

As most clinical studies correlating serum lipids to atherosclerosis have used a proved previous myocardial infarction as the index of atherosclerosis, the nagging doubt persists that some other factor in this accident [such as thrombosis] rather than the underlying atherosclerotic plaque might be the true correlate. In fact, recent reviews devote increasingly more space to the mounting evidence that certain serum lipids have much to do with whole blood coagulation⁴.

Since nutrition became a separate science, the major effort of its students has been the identification and correction of various deficiency states as they occurred in large segments of the world's population. Even now the greatest emphasis is rightly placed on how to improve the nutritional status of backward nations. There has been a growing awareness, however, that in the United States and certain northern European countries where chronic cardiovascular diseases flourish, the majority of the population actually enjoys a surfeit of natural foodstuffs.

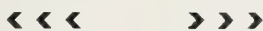
The question has been raised whether subtle metabolic deficiencies may not accrue from a relative deficiency of one essential nutrient induced by an excess of another. An example of

this situation is the growth depression reported in dogs when either methionine or lysine is added to a mixed diet, but not when both are added at once⁵. More attention should and undoubtedly will be paid to the maximum allowance as well as the minimum requirement of and the interdependencies between various foodstuffs.

Any change in food habits that may be recommended must balance the likelihood of benefit against any possible inconvenience, discomfort, or even harm to the individual from such a dietary proscription. In view of the revisions and reversals of past recommendations for chronic cardiovascular diseases, a conservative approach toward any broad scale change certainly is warranted.

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New peptic ulcer remedy

An anticholinergic agent providing prolonged and effective action on the gastrointestinal tract without undesirable side effects would approach the ideal in therapy for peptic ulcer. This report concerns our preliminary experience with a new, prolonged action anticholinergic drug as an adjunct to the medical management of peptic ulcer. The drug under investigation is a brand of propantheline bromide. It differs from Proban-

thine in that the active ingredient is released from the tablet gradually over a period of eight to 12 hours. The results of therapy were considered excellent for 10 of our 15 patients. These 10 patients became asymptomatic within 24 to 72 hours after institution of the treatment regimen, and they remained free of symptoms throughout the period of observation. *N. C. Hightower, Jr., M.D. and A. C. Broders, Jr., M.D. A New Anticholinergic Agent in the Treatment of Peptic Ulcer. Texas J. Med.* Jan. 1958.

Benign Tumors of the Breast

J. C. THOMAS ROGERS, M.D., URBANA

LUMPS, swellings, areas of tenderness, sensations of pain, and discharges from the nipple in the female breast in most instances do not indicate the presence of carcinoma. However, the specter of cancer invariably dominates every woman's thoughts until the true nature of her symptoms is determined.

Carcinoma is by far the most common malignant neoplasm arising in the breast. Consequently our interest lies, first, in benign conditions of the glandular system of the breast in which carcinoma may be a diagnostic problem. Second, we are concerned with benign entities that may have malignant potentialities.

The glandular system of the breast is of ectodermal origin and develops from the skin somewhat as do sweat glands. The systems of 15 to 20 major ducts leading from and draining the glandular lobes with their multiple tributary canaliculi and acini are similar in both sexes until adolescence. The ovarian hormonal influence then stimulates the female breast to greater growth in both the canaliculi and the acini. The latter are especially prominent and multiple during menstruation and lactation. The amount of supporting fatty panniculus relative to the quantity of gland tissue is subject to wide variation.

Oversecretion of estrogen before adolescence may stimulate precocious and symmetrical hypertrophy of the breasts. At adolescence one or both breasts may enlarge abnormally from similar stimulus. In both groups a source of excessive estrogen formation other than from primary ovarian hyperfunction must be sought out. Careful search for granulosa cell ovarian tumor, chorioma or teratoma, tumors and hyperplasia of the adrenal cortex, and pituitary syndromes should be made.

Gynecomastia (hypertrophy of the male breast) is characterized histologically by a marked multi-

plicity of ducts, no noteworthy acini, and excessive fibrosis. This condition often is noted in elderly males with carcinoma of the prostate who are taking estrogens. Testicular neoplasms also must be considered. A badly damaged liver may not detoxify estrogen, thereby allowing an excessive accumulation of the hormone in the blood stream.

Solid benign tumors of the breast are chiefly of ductal origin and are composed of glandular and fibrous tissue in varying proportions. They are grouped essentially as fibroadenomata and papillomata. Fibroadenomata may be intraductal, periductal, or anatomically independent of the ductal structures. These lesions are excised locally and usually do not recur. The softer gland containing tumors that arise from the larger ducts as intraductal papillomata are vascular and more prone to cause a bloody discharge from the nipple.

The problem of the bleeding nipple should be dissolved surgically, whether a palpable nodule be present or not. Careful exploration of the segment involved should be carried out and, by meticulous dissection, the involved duct and lobe may be isolated and excised. The approximate site of the papilloma usually can be determined preoperatively. The point at which pressure about the nipple causes the appearance of blood-stained fluid will indicate the location of the pathology. Tiny papillomata may be visible only upon microscopic study. Nevertheless, the discolored duct and its segmental tributaries should be excised.

The somewhat infrequently encountered canalicular or ductal adenofibroma of massive proportions is commonly known as "sarcoma phyllodes cysticum." It is malignant only by connotation and rarely recurs after adequate excision.

Although the term "chronic cystic mastitis" has been applied to most localized or general nodulations of one or both breasts, histologic evidence of chronic inflammation in these cases

From the Department of Surgery, Carle Hospital Clinic and Carle Memorial Hospital, Urbana, Illinois Presented before 118th Annual Meeting, Illinois State Medical Society, Chicago, May 21, 1958.

usually is meagre. The breasts may be described as "lumpy," "shotty," or "nodular" and may present varying degrees of tenderness. Medical advice usually is sought because of soreness or a lump in one or both breasts. The patient is most frequently about 40 years old with no history of recent lactation.

Examination reveals one or more nodules that may be up to several centimeters in diameter. The nodules, along with some adjacent mammary tissue, may be removed. The pathologist routinely reports the presence of large cysts with flattened cellular lining. However, the significant portion of his study describes multiple smaller cysts with varying degrees of hyperplasia or mazoplasia of the lining cell structure. Many times the areas of hyperplasia may suggest or actually form papillomata (adenosis). There may be some evidence of periductal small-cell infiltration, but this feature of chronic inflammation usually is not striking.

In other words, the danger of carcinoma in this breast does not lie in the large distended cyst. But it exists in the remaining portions of the glandular system that have been subject to the same estrogenic stimulation under the same conditions as the duct which became enlarged to clinical proportions. The same breast may contain all three phases of mammary dysplasia — mazoplasia, adenosis, and cystic mastitis or fibrocystic disease.

Warren¹ reported the incidence of carcinoma in patients with such fibrocystic disease as 4.5 times as frequent as in the general population, whereas Geschickter² believes that a woman with fibrocystic disease has twice the carcinogenic potential of the general population.

Division of breast tumors into two general groups has been satisfactory in my experience. Breast tumors are either solid or cystic as clinical entities, from the standpoint of treatment. All significant solid nodules should be excised. Dependent upon certain criteria, rarely should cystic nodules be removed.

In 1948 I initiated the practice of aspirating cysts of the breast under certain rigid conditions —namely:

1.—The patient must report back for follow-up in one month and return for regular subsequent observations.

2.—The services of a capable exfoliative cytologist must be available.

3.—The nodule must disappear upon the withdrawal of the cystic fluid.

4.—A cyst that recurs in the same place three times should be excised.

5.—If bloody fluid is present, the cyst is excised.

6.—If no fluid is obtained by aspiration, the nodule must be excised.

The technique consists of carefully introducing a number 22 hypodermic needle into the cyst and withdrawing the fluid without traumatizing the cyst walls. Gentle pressure about the needle and area of the mass will aid in evacuating the cyst more completely.

Goode³ and his associates contend that surgical removal of cysts in cases of chronic fibrocystic disease of the breast provides no protection against carcinoma. They treated 202 cases of cystic disease of the female breast by the aspiration method. There were 267 aspirations in this group, with 57 dry taps. Five of the dry taps were carcinoma. Of the 210 successful aspirations, 194 resulted in disappearance of the cyst. In some cases more than one aspiration was required.

The rationale for this simple method of treating cysts of the breast is summarized as follows:

1.—Carcinoma is less prone to occur in the larger cysts of the breast than in the remainder of the breast.

2.—Other cysts often may become sizable and call for further excisions.

3.—The method is safe if well controlled and is less expensive to the patient.

4.—To date I have never seen carcinoma develop at the site of cyst aspiration.

5.—The aspirated fluid has been negative for cells suspicious of malignant potential.

6.—The underlying pathology is not eliminated by either excision or aspiration.

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Poison Control in the State of Illinois

JOSEPH R. CHRISTIAN, M.D., F.A.A.P., F.C.C.P., CHICAGO

THE ingestion of potentially toxic substances and the accidental death of a child or an adult usually is the result of inadequate precautions or lack of awareness on the part of parents, professional personnel, and manufacturers of drugs and common household products.

In 1950, the Accident Prevention Committee was appointed by the American Academy of Pediatrics as a result of growing concern over the ever increasing problems of accidental deaths in infancy and childhood. This nation-wide committee was instrumental in encouraging state and local groups to analyze critically the size and scope of this problem. By November 1952, the interest of several pediatricians in Illinois was stimulated and guided by Dr. Edward Press, a member of the Accident Prevention Committee. The main objective proposed by Dr. Press was to minimize the damage from potentially toxic substances by improving efforts at prevention and treatment of accidental poisoning.

On April 1, 1953, the first formal meeting of the Poison Control Committee of the Illinois Chapter of the American Academy of Pediatrics was held. This committee consisted of the following members: The chairman of the department of pediatrics of each of the five medical schools in Chicago; the chairman of a large general hospital; the state chairman of the American Academy of Pediatrics; and representatives of the Chicago Board of Health, the state toxicological laboratory, the American Medical Association, the Federal Food and Drug Administration, and the National Safety Council. Dr. Press was designated Chairman of the

Committee and took upon himself the difficult and time-consuming task of compiling a reference guide to the chemical constituents of common household substances, together with treatment recommendations. An 80 page, loose-leaf outline guide was submitted to all members for corrections, criticisms, and suggested revisions. This reference guide was then used as a basis for treatment of the patients seen in the emergency rooms of the hospitals associated with each of the pediatric members of the committee. The original six participating hospitals were: Bobs Roberts, Children's Memorial, Cook County, Mercy, Michael Reese, and Mount Sinai.

A poison control officer and an alternate were appointed for each of these hospitals. The responsibilities of this designated officer were to instruct the professional personnel concerning the management of poison cases; to be responsible for having reference books and manuals available for use by the members of the staff; to give specific advice to the house staff or to staff physicians concerning poison cases; and to report all cases to the Poison Control Center at the Chicago Board of Health on a form specifically developed for this program.

No specific therapy was recommended, but modification or complete change of the suggested treatment procedures set up in a reference manual were welcomed. Each poison control officer was free to use his own judgment, but each case, treated or untreated, was reported to the Center at the Chicago Board of Health. The reports were then analyzed and summarized by members of the Poison Control Committee and later mechanically tabulated to obtain as much useful information as possible.

To prevent recurrence of the specific accidental poisoning reported, the Chicago Board of Health visiting nurses were utilized to make home visits. Evaluation was made of the home with respect to safety, existing conditions that might be rem-

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Presented before the General Assembly, 118th Annual Meeting, Illinois State Medical Society, Chicago, May 21, 1958.

edied, and general health. A second follow-up report form was completed by the visiting public health nurse and returned to the Center for statistical analysis, similar to the hospital report form.

After an initial pilot study from November 15, 1953 to March 10, 1954, all members of the committee and the participating hospitals agreed that the program had tremendous possibilities. It was officially endorsed by the Chicago Medical Society and the Chicago Pediatric Society in April, 1954; subsequently all Chicago Hospitals were invited to participate.

In May, 1954, the first statistical breakdown of substances swallowed was tabulated as follows:

TABLE 1
(May 1954, Chicago Cases)

Type of Substance	Number	Per Cent
Medications:	168	45
Internal 115	31	
External 53	14	
Cleaning, Polishing, & Sanitizing Agents	84	22.5
Petroleum Distillates	46	12
Pesticides	41	11
Turpentine	13	3.5
Miscellaneous	20	5
Unknown	3	1
Total	375	100

In May, 1955, a second statistical tabulation was made without any appreciable change in the percentage distribution:

TABLE 2
(May 1955, Chicago Cases)

Type of Substance	Number	Per Cent
Medications:	523	50.6
Internal 408	39.5	
External 115	11.1	
Cleaning, Polishing, & Sanitizing Agents	196	18.9
Pesticides	107	10.4
Petroleum Distillates	93	9.0
Turpentine	42	4.1
Cosmetics	19	1.8
Miscellaneous	46	4.5
Unknown	7	0.7
Total	1033	100.00

In March, 1956, a third statistical tabulation was made with similar results. (Table 3)

The most strikingly apparent fact is that, in spite of the larger number of cases analyzed in the subsequent series, roughly 50 per cent of the reported cases of poisoning were caused by the

TABLE 3
(March 1956, Chicago Cases)

Type of Substance	Number	Per Cent
Medications:	706	50.6
Internal 567	40.6	
External 139	10.0	
Cleaning, Polishing, & Sanitizing Agents	276	19.8
Pesticides	147	10.5
Petroleum Distillates	110	7.9
Turpentine	51	3.7
Cosmetics	33	2.4
Miscellaneous	60	4.3
Unknown	11	+0.7
Multiple	1	<0.1
Total	1395	100.0

ingestion of medications, especially internal products. Aspirin is by far the most commonly occurring accidental poisoning in childhood [16-20 per cent]. If this single fact can be confirmed in other centers throughout the country it alone would justify setting up poison control centers in every city throughout the country.

The preceding tabulations of the incidence and types of accidental poisoning in childhood in the Chicago Area have intensified the interest of hospitals, health departments, other official and voluntary agencies, and physicians at the local, state, and national levels. By November, 1955 — one year after the initiation of operation of the Chicago Poison Control Center — 14 cities had centers in actual operation and nine additional cities had centers at various stages of development. Each developed organizational plans most feasible for their specific area — some were primarily functioning as a part of an emergency service of a general hospital; others utilized the local health department; still others originated as a part of the pediatrics department of a medical school or a service of the county medical society.

All the centers record and tabulate the numbers and types of poisonings and offer facilities for emergency treatment through either the center itself or one of the local participating hospitals. By means of these records — which up to the present time have been individualized — current information is made available concerning the toxic constituents of pharmaceuticals and household products as well as suggestions or recommendations for specific treatment.

Early in 1957, new standard report and fol-

low-up forms were formulated by Dr. Norman Rose and other members of the Division of Preventive Medicine of the Department of Public Health of the State of Illinois. The report was filled out in duplicate when a patient was treated and sent to the local health department or to the Division of Preventive Medicine in Springfield. A follow-up form was then sent to the regional health officer for investigation. After completion of the investigation, a copy was returned to Springfield to be filed with the original report form.

Also in 1957, plans were formulated to establish a National Clearinghouse for Poison Control centers within the Accident Preventive Bureau, Division of Special Health Services, Bureau of State Service. When in full operation the Clearinghouse was to serve the following purposes:

1. Interchange of information with local poison control centers throughout the country.
2. Stimulation of development of new or improved methods of prevention and treatment of poison cases, and encouragement of basic and clinical research.
3. Aid to states and local communities in establishing poison control centers.
4. Study of national and area trends in poisoning and successful methods of prevention and treatment; preparation of news releases for professional and lay health education.
5. Repository of information voluntarily provided by manufacturers.

In December, 1957, a standard report form was initiated in the State of Illinois so that a uniform method of reporting would be available in all areas. An additional Poison Control Center was established at the Municipal Contagious Disease Hospital.

Early in 1958, plans were made to establish additional centers at Resurrection and Little Company of Mary Hospitals in the Chicago area. At present, the centers functioning in the Chicago area are:

Bobs Roberts Hospital
 Mercy Hospital
 Illinois Research and Educational Hospital
 Mount Sinai Hospital
 St. Luke's Hospital
 Michael Reese Hospital

Cook County Hospital
 Children's Memorial Hospital
 Municipal Contagious Disease Hospital
 Resurrection Hospital

In the State area, the following centers are functioning:

Evanston Hospital, Evanston
 St. Francis Hospital, Evanston
 Community Hospital, Evanston
 St. John's Hospital, Springfield
 Memorial Hospital, Springfield
 St. Anthony's Hospital, Effingham
 Blessing Hospital, Quincy
 St. Mary's Hospital, Quincy

The statistical breakdown of case reports in the area outside of Chicago for 1957 were:

TABLE 4
 Accidental Poisoning in Children 1957

Type of Substance	Number	Per Cent
Medications	170	61
Petroleum Distillates	12	4
Pesticides, etc.	31	11
Household Products	48	17
Miscellaneous	19	6.7
Unknown	1	0.3
Total	281	100.0

The statistical breakdown of case reports of the Chicago area for 1957 were:

TABLE 5
 (Chicago Cases 1957)

Type of Substance	Number	Per Cent
Medications:	672	55.7
Internal	583	48.3
External	89	7.4
Household Products	208	17.2
Petroleum Distillates	49	4.1
Cosmetics	21	1.7
Pesticides, etc.	102	8.5
Turpentine	27	2.2
Miscellaneous	103	8.5
Unknown	25	2.1
Total	1207	100.0

During 1957, 24 deaths due to accidental poisoning were reported:

TABLE 6
 Deaths Due to Accidental Poisoning
 1957

Poison	Age	Residence	(County)
Aspirin	1 year	Peoria	Peoria
Methyl Salicylate	1 year	Chicago	Cook
Methyl Salicylate	2 year	Chicago	Cook
Methyl Salicylate	5 year	Chicago	Cook

Sodium Cyanide	1 year	Chicago	Cook
Furniture Polish	1½ year	Rock Falls	Whiteside
Sparine	11 mos.	Chicago	Cook
Strychnine	2 year	Quincy	Adams
Benzine	1 year	Chicago	Cook
Kerosene	10 mo.	Chicago	Cook
Kerosene (Furniture Polish)	1 year	Chicago	Cook
Fluoride	2 year	Chicago	Cook
Phosphorus (Rodenticide)	5 year	Collinsville	St. Clair
Lead	1 year	Chicago	Cook
Lead	2 year	Chicago	Cook
Lead	1 year	Chicago	Cook
Lead	1 year	Chicago	Cook
Lead	1 year	Chicago	Cook
Lead	2 year	Chicago	Cook
Lead	1 year	Chicago	Cook
Lead	1 year	Chicago	Cook
Lead (Inhalation)	1 year	Cairo	Alexander
Lead	1 year	Chicago	Cook
Lead	2 year	Chicago	Cook

TOTAL 24

SUMMARY

Much progress has been made in the State of Illinois in poison control.

1. Initial treatment has become prompt, effective, and more readily available.

2. There has been an increasing source of information concerning the type of general and specific methods of treatment.

3. Through the use of community agencies and various methods of communication, prevention rather than treatment of accidental poisoning is becoming the major goal of poison control.

4. Ultimately the awareness of parents, professional personnel, and manufacturers of this critical problem may lead to the development and promotion of protective legislation for labeling and storage of potentially toxic substances. 2537 South Prairie Avenue

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Test for mitral insufficiency

A method for detecting hidden leaks in the valve between the left chambers of the heart has been developed by scientists at the National Heart Institute of the U.S. Public Health Service. The new method was described in technical detail in the *Journal of Clinical Investigation* for January by cardiologists Eugene Braunwald and George H. Welch of the Institute's Laboratory of Cardiovascular Physiology, and surgeon Andrew G. Morrow of its Clinic of Surgery.

To reveal the leak, these investigators raise the arterial blood pressure by injecting the

artery constricting hormone, norepinephrine, into the patient's blood stream at a carefully measured rate. Meanwhile they observe and record the effects of this increase in blood pressure on the pressure inside the left atrium.

A leaking valve is revealed if the pressure rises grossly in this chamber in response to the rise produced in the arterial blood pressure. In a normal heart the pressure rise in this chamber is slight because such gross changes in arterial blood pressure are largely excluded from the atrium by a tightly closing mitral valve. *Editorial. Detection of Leaking Valves. J.M.A. Alabama June 1958.*

Medical Society — Health Department Partnership in Pennsylvania

JAMES D. WEAVER, M.D., ERIE, PA.

THE Medical Society of the State of Pennsylvania has always been vitally interested in the field of what today would be called "public health and preventive medicine." Proof of this interest is found in Article II of the first constitution of the state medical society, adopted in 1848. One of the objects of the society was "to improve the health and protect the lives of the community." We read in the annals of the state medical society that the society has been responsible for the creation and development of public health in Pennsylvania. Every change that has been made — every improvement, instruction, and function has been the result of some definite action of the state society.

During the 26th annual meeting in 1875, a committee was appointed to memorialize the legislature for the appointment of a state board of health. This committee, 10 years later was discharged with thanks for many years of earnest labor, and the state board of health bill was passed by the legislature in 1885. Twenty years later, the medical society, realizing that the organization and authority of the state board of health did not provide the people of Pennsylvania with the type of public health protection they should have, led the way in revising the existing structure and creating a department of health. The department of health is now over 50 years of age.

But the practice of medicine is dynamic — it is ever changing and adopting new ideas, techniques, discoveries; responding to stimuli and challenge to new problems and needs in the continuous search for better methods of practice. So, too, the practice of public health also should be dynamic, changing to meet the new needs and problems.

Member of the Medical Society of the State of Pennsylvania Committee on Preventive Medicine and Public Health

Presented before the 118th Annual Meeting, Illinois State Medical Society, Chicago, May 22, 1958.

Today's physicians in Pennsylvania, like their predecessors of 1875 and 1905, were not satisfied with just a public health program. They wanted a program to meet today's needs. Once more, the medical society led the way.

The Commonwealth of Pennsylvania has a population of 11 million distributed among 67 counties. Each county is governed by a board of three commissioners elected by their particular county constituents, and is subdivided into cities, boroughs, and townships. In Pennsylvania, counties have played no role in public health programs. Traditionally, under their respective codes each city, borough, and first class township had been responsible for its own public health program; the state department of health is responsible for the health services in all second class townships.

This, over the years, had led to a hodgepodge of medical services, oftentimes with great gaps and variances. Following the state medical society's action of 1946 in forming a commission on public health and preventive medicine, the situation was brought vigorously to light by the American Public Health Association after conducting a public health survey in Pennsylvania. This professional evaluation of Pennsylvania's public health rated the aggregate program as good, with some aspects that were excellent. The report bears this out in its detailed discussion of the individual programs. Some of the work, however, could not be rated better than fair, and most of it, as is true in other states, is not as good as it should be when measured against the most advanced thinking and procedures.

There were a great many recommendations in the text of the report but the eight most important were called *The Eight Keystones* that should be used to build the kind of public health structure Pennsylvania expects to have, can have, and deserves. The keystones are summarized in these words: "To achieve a new era in public health, the highest practicable standards of pub-

lic health services must be established and conducted by skilled professionally trained personnel and sound administration; state health services must be decentralized and efficient in both organization and administration; and future programs must be focused towards the development of strong local health units and control by the people of their own health services."

The state medical society met the challenge. It was instrumental in providing a determined leadership that rallied all those interested in better and modern public health to unite in a program designed to modify the public health structure, and a general public educational program in the state to spread the results of the A.P.H.A. survey far and wide. This was followed by the passage of enabling legislation in 1951, permitting the formation of county or multi-county health departments with a provision for reimbursement of 50 per cent of the cost of the local health department program up 75 per cent per capita. This was the first time local funds spent for public health were matched by the State. Next came the appointment of a qualified physician, trained in the field of public health, to the office of Secretary of Health, which constituted the first step in the reorganization of the state health department. As the reorganization of the state health department progressed, a pilot county health department was established in Butler county. Then three other county health departments were established by referendum of the people or by resolution of county commissioners.

In less than a decade, The Medical Society of the State of Pennsylvania, activated and procured the establishment of a modern state health department, the appointment of career people for health posts, the installation of a merit system, the revision of sanitary laws of the state, and the founding of a Graduate School of Public Health to make it possible for Pennsylvanians to be trained in this most important field of medicine. Pennsylvania had begun to march ahead to a new area of public health. These accomplishments, although gratifying, were only the beginning of what was necessary to follow.

The Committee on Preventive Medicine and Public Health of the state society soon found there was need for an educational program on public health on a professional level for all the

physicians throughout the state. The committee tried to stimulate at county level the development of interest and understanding of the advantages of mutual partnerships with health departments.

The Educational and Scientific Trust of The Medical Society of the State of Pennsylvania

The Educational and Scientific Trust created in 1955 was requested to undertake a project to further the carrying out of the programs. The trust was the first entity of its kind set up by any medical society, and it is hoped this instrumentality can be used successfully to develop professional postgraduate projects in health fields for physicians throughout the State.

Periodic clinical institutes, symposiums, demonstrations, and conferences have been available to physicians on problems concerning scientific research or the management and treatment of disease entities. On the other hand, few opportunities of a similar nature have been offered to physicians in the fields of public health and preventive medicine. The program of the Pennsylvania Medical Society aims to create and present such opportunities in preventive medicine and public health as it has in curative medicine and other fields.

Again, the activities of the Pennsylvania state and county medical societies in evaluating community health needs and participating in the planning of improved county health services and facilities, are unparalleled in the history of public health movements. The program has been characterized as an impressive indication of what a state society can do to stimulate thinking and understanding among practicing physicians concerning public health services and practices and their relevancy and effect upon the individual's health in the community. The program to date also has demonstrated what active local leadership by county medical societies, can accomplish in their communities when approached advisedly.

The Educational and Scientific Trust of the Medical Society of the State of Pennsylvania proposes to effect additional educational and scientific projects in the arts and sciences of medicine. The declaration of trust provides for the trustees to supervise and administer such projects.

To date grants totaling \$115,000 have been received from the A. W. Mellon Educational and Charitable Trust for the purpose of initiat-

ing through education and creative and active professional participation in the field of public health by county medical societies and their members. It is contemplated that the trustees will seek additional funds to be applied to research activities and other medical education programs, such as recruitment of physicians for public health work, evaluation of hospital utilization, rural health, physician placement, geriatrics, rehabilitation, medical phases of civil defense, and other unexplored and undeveloped fields of medicine.

The partnership described in Pennsylvania between the state medical society and the state health department has been implemented by the active participation of such bodies as the Pennsylvania Health Council. The state health council is basically a lay organization with professionals who are interested in furthering public health, and in the co-ordination of public health planning. We would be remiss if we did not mention the fine co-operation given by the Pennsylvania Tuberculosis and Health Society and other voluntary health agencies.

County Health Department Movement in Pennsylvania

Referendums and political campaigns bring many problems, especially when you are trying to keep your health department separate and distinct from the political affairs of the county. Nevertheless, we have had several successful referendums, particularly in Bucks and Erie counties, and the reaffirmation of the pilot unit by vote of the people of Butler county. Unsuccessful referendums have been held in several of our counties, but the vote as a rule has been close and has been beclouded by issues other than public health matters.

Failure in certain counties has not been due entirely to the politics of that county. One factor is our failure as physicians to become fully aware of the merits to us in our community of an efficiently functioning health department. Indifference of physicians in certain counties and their desire not to be entangled in political affairs, has contributed to the negative vote and the defeat of these measures. When physicians are not sufficiently aware of the merits and need of adequate community health protection and an efficient health department to go out and talk and work on the project, the public will become

confused or remain indifferent; their votes will reject these progressive public health measures.

Components of Success in Developing Local Health Department

The first component is thorough indoctrination of physicians. In Pennsylvania this has been accomplished with the help of the Committee on Preventive Medicine and Public Health and the Educational and Scientific Trust, the reaffirmed support of state medical society's House of Delegates, and the dedicated physicians from the public health field as well as from the ranks, working tirelessly to educate each other and learn more about county health departments. The indoctrination of physicians includes programs before county medical societies and the establishment of committees in counties for preventive medicine. Let us not forget to have these societies reaffirm frequently their desire to establish county health departments. This should be done at a county medical society meeting, as the members of that society have the opportunity at that time to voice their opinions. We in Erie county, each year at our annual meeting, discussed the subject of the establishment of a county health department and then reaffirmed the original resolution made in 1952. Such a procedure permits any one of the members of the society the opportunity to express his opinion either for or against. It leaves no loopholes so far as individual physicians going out and claiming they had no voice in the society action.

We must not forget the important role that can be played by the auxiliary. These wives can help not only in the indoctrination of physicians, but through their membership and activity in lay organizations can help spread the gospel of the benefits of such county health units.

Mr. Ralph W. Neill, executive secretary, in his Washington State Medical Society report, had this to say: "We must forever remember the profession has an obligation to the public and the profession to do some of the necessary things rather than shift to others the responsibilities that the profession can justifiably take care of."

The second, and perhaps the most difficult component of success for a referendum, is that of the indoctrination of laymen and lay organizations within the county. This can be accomplished by the establishment of some central

force within the county dedicated to good public health, charged with the responsibility of developing the program.

We in Pennsylvania are doing that through local health councils, which help co-ordinate the activities and the programs of the voluntary health agencies. These councils also help in educating the public about what these agencies, both public and voluntary, are doing for the community. By setting up speaker's bureaus and obtaining endorsements of many of the local civic organizations, laymen can be indoctrinated. If this is done persistently and consistently you will be crowned with success, but it cannot be done haphazardly, indifferently, or intermittently.

Success of thorough education, co-operation, and participation of laymen can be enhanced by a health survey of a particular county and the public health services provided within its boundaries. This often is the starting point to get laymen interested and participating in the subject. Once they have participated and learned firsthand the problems in their particular counties, the existing deficiencies [such as in immunizations, accident prevention, poisoning, food licensing, sewage and water control, rodent control, and checking of restaurants], they become activated into doing something about them and will be your best advocates for the establishment of a sound health department.

The third component of success is that of a bipartisan referendum approach. I say bipartisan advisedly, for I do not feel that much can be accomplished by nonpartisan approaches so far as referendums are concerned. Nonpartisans, in my mind, usually are too indifferent and too ineffective politically to make any dent upon either of the two major parties and their policies. Therefore, the choice of strong leaders of both parties, who are dedicated to the improvement of the public health and of the community, is necessary for the best approach to a successful referendum. In Erie county, the bipartisan committee for the referendum was established and its leaders were co-chairmen. One was a CIO president and an active member of the Democratic County Executive Committee; and the other, a young banker who is an active Young Republican as well as a member of the Junior Chamber of Commerce. These two, together with other bipartisan figures and community leaders, led the referen-

dum and the public educational program that culminated in a successful vote in Erie county.

The fourth component of success in establishing a county health department is sound public relations. Public relations should be accomplished by all means available from the county medical and state medical societies, as well as from proper lay consultations in the involved county. It is wise at times to consider the use of professional public relations men who know the subject and the public feeling. Professionals know how to put out releases in digestible form, in contrast to the technical and awkward phrases we physicians might use. Good public relations is the keystone to success for county medical societies and oftentimes is neglected on the basis that we could do it ourselves better than a professional man. This is an expensive fallacy and many of today's problems with the press can be related to this particular point.

Politics and the County Health Department Movement

In all of our counties we have two parties. In some counties, we have the problem of large cities controlled by one party — perhaps the Democratic — while the county itself is basically the opposite party, or Republican. It would seem on the surface that this is an impossible situation in the direction of establishing a joint city-county health department. Pennsylvania, and the success of the Allegheny County Health Department belies such fears. The biggest problems you have at the start are the fear of the county political organizations of loss of political patronage and the fear of the city that it is giving up its health department and transferring its functions to the county. The county commissioners in our state are well aware that once they establish a health department that meets the approval of the state health department under the standards established by law, its patronage is limited to nonprofessional employees. All administrative, professional, and technical employees are under the merit system — which represents about 75 to 80 per cent of the total number of employees — and obtain their jobs on the basis of their personal qualifications and training. So you can see why the county commissioners might hesitate to pass, by resolution, the establishment of a county health department when they fear the loss of

patronage. The County Commissioners also fear the increased cost of conducting a health department and its effect upon their budget. Therefore, it usually is best to precede a referendum with a public health educational program in the county, including physicians and laymen expressing the public's desire. The politicians then will hesitate to criticize or interfere with the wishes of the people, particularly as they pertain to health matters.

CONCLUSION

I have attempted to review for you some of the basic points involved in the fine partnership between the Medical Society of the State of Pennsylvania and the State Health Department. I also have pointed with pride to the growing partnership in our counties between our medical societies and the county health departments. Any such program is beset with problems and distractions. But we must realize that once we have become dedicated to the principle of good public health and the best interests of our community we as physicians must go forward and assume our share of the leadership. We cannot expect others to do it while we sit back and let them catch the blows. Physician leadership by organized medicine through these health depart-

ments will enable us to have the best public health services possible along the principles and philosophies of organized medicine.

Dr. Pascal Lucchesi, Chairman of the Committee on Preventive Medicine and Public Health, of The Medical Society of the State of Pennsylvania stated it well when he said: "The best bulwark against socialized medicine is the county health department." From our state health department let us take the quote of our recent Secretary of Health, Dr. Berwyn F. Matison; "In all of these activities the state department of health has worked closely with organized medicine in the Commonwealth. None of these achievements was painless or easy. But in spite of their many difficulties, plans were devised and carried out jointly. Such a working relationship, better than anything else, disproves the claim that medical practitioners cannot or will not work for the public welfare and in the broader interest of the community health." When the health department official is an active respected member of his county medical society, he will be of the best service to all of us as well as to himself.

3123 State St.

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Aspirin and diabetes

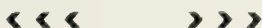
The early use of aspirin in the treatment of diabetes was discontinued because of the development of toxic effects. However, these symptoms apparently result from blood levels that are higher than necessary for the control of hyperglycemia. Aspirin, compared with the sulfonyl-

ureas, has an advantage in that it may be given for prolonged periods without the risk of agranulocytosis. In addition, the maximum tolerated doses lowered the blood sugar to normal without producing hypoglycemia. Further investigation is needed to assess the place of aspirin in the treatment of diabetes mellitus. *Aspirin and Diabetes. Nutrition Rev. June 1958.*

Unnecessary hospitalization

Are hospital beds being misused? The conclusion here would depend on what one considers to be misuse. There is some evidence on which to base the opinion that hospital beds, particularly those in short-term, general hospitals, are not being utilized as effectively as they might be. Harbison draws attention to a survey made in a 350-bed general hospital in which patients were divided into two groups based on the ability of the patient to more or less take care of his immediate needs, particularly whether or not they were ambulatory. In this study, he found that 206 patients, or 59 per cent, were not sick enough to be bedridden and hence presumably were occupying a bed unnecessarily. Becker, in another article on the control of hospital care, refers to a study made by the Michigan State Medical Society and the Michigan Blue Cross. This project involved the careful analysis of 12,000 admissions to 25 general hospitals in Michigan. The analysis indicated that, of the total of 76,238 patient-days involved, 11,172, or 14.6 per cent, could be considered unnecessary. The author does not specify the criteria by which the necessity for hospitalization were determined

except to state that they were conservative and that of the patients classified as using a hospital bed unnecessarily, hospitalization was not considered essential to "the recovery, safety, or reasonable comfort of the patient." He emphasized that the results of the study did not indicate that the patients involved did not need the medical, surgical, or diagnostic care they received but rather that it was not necessary for them to occupy a hospital bed to receive it. He pointed out that one out of eight Blue Cross patients was admitted for either radiologic or laboratory procedures, either of which could have been performed on an outpatient basis. The further point was made in this analysis that 18 per cent of Blue Cross patients whose cases were reviewed remained in the hospital "in excess of their need." While exception may be taken to the interpretation of the findings of this study, I believe the conclusion is inescapable that the fact that a third party—Blue Cross or commercial carrier—is paying the bill leads to abuse and that an appreciable number of patients now receiving hospital care could receive completely adequate medical care without tying up a hospital bed. *E. H. Leveroos, M.D. National Aspects of Hospital Use. Pennsylvania M.J. June 1958.*



Above our head

We are in an era where disease processes are being analyzed and described at the intracellular level. The individual with this unique skill is currently far ahead of his clinical associates, so far ahead that we clinicians cannot even converse with the enzyme chemist, much less guide or direct him.

We have had our renaissance. We are on our plateau. The era of the enzyme chemist is here.

He offers a powerful, difficult research method. We in cardiology, as individuals and as responsible administrators, need to take stock and re-equip ourselves in the methods and potential of this new field. Our funds and our efforts must be applied in this area which is the future of medicine; the path upward from the plateau will be strewn with electrokymographs, vectorcardiographs, and second generation cardiologists. *E. Grey Dimond, M.D. Renaissance and Plateau. J. Kansas M. Soc. May, 1958.*



Fibrocystic Disease of the Pancreas

EDWIN F. HIRSCH, M.D., CHICAGO

THE main pathologic changes of fibrocystic disease or fibrosis of the pancreas, according to Andersen¹ and others², are: 1) replacement of acini of the pancreas by epithelium lined cysts embedded in fibrous tissues and without changes in the islets of Langerhans; 2) bronchitis, bronchiectasis, abscesses, and bronchopneumonia of the lungs; 3) symptoms of vitamin A deficiency in children who die within the first year of life; and, occasionally, 4) atresia of the small bowel or of the cystic or pancreatic ducts. The cause of the lesions in the pancreas and in the lungs is not known; they probably are present at birth.

The symptoms are comparable to those produced experimentally in animals, such as the dog, by ligation of the pancreatic duct and can be ascribed to the fact that the external secretion of the pancreas³ does not enter the small bowel. Changes in the pancreas and the lungs of infants and children cause symptoms of the gastrointestinal and the respiratory tracts. Periodic vomiting and a nonliquid diarrhea, with failure to gain or maintain weight, are associated with symptoms of lung infection. The stools are bulky, pale, putrefactive, and fatty but without exudates or blood. With appropriate diet, and under favorable circumstances, the symptoms may diminish or disappear for several months. Fat foods especially are not tolerated; proteins and carbohydrates are the main nutritive substances

in the diet. Symptoms of vitamin A deficiency are due probably to failure to absorb the vitamin, and the associated osteoporosis results from this deficiency or a shortage of calcium salts or both. The fatty changes of the liver and the occasional lymphocytic infiltrations of the intestinal mucosa are considered to be secondary.

Fibrocystic disease and other nutritional disorders have been diagnosed clinically as celiac disease. Andersen stated that the term applies to a clinical syndrome, not to a disease entity, and that symptoms can be produced by several disorders, one of which is the cystic fibrosis of the pancreas.

Since the acinar tissues of the pancreas with fibrocystic disease are destroyed, and there is a loss or decrease of their physiologic functions, the clinical diagnosis can be difficult, especially before symptoms of pulmonary disease appear. According to Andersen, the most direct method for the diagnosis of functional deficiency of the pancreas is the assay of the pancreatic enzymes in the duodenal fluids. The assay of trypsin, she stated, is a reliable diagnostic test because this enzyme is uniformly low or absent in this disorder. The assay of amylase is not reliable because of the low concentration during the first months of infancy and in many older infants and young children with chronic diarrhea. Amylase may be present occasionally in patients

with pancreatic fibrosis, presumably because salivary amylase is not destroyed during passage through the stomach. Lipase is present in normal infants of all ages and its concentration is reduced in congenital pancreatic deficiency. However, the assay of lipase is less reliable for diagnostic purposes because of low values in an occasional control case and because of technical difficulties.

Measurements of tryptic activity in duodenal fluids, accordingly, seem to be the best way to establish a normal or abnormal pancreatic secretion. Difficulties in obtaining the duodenal fluids for assay have led to indirect methods for an estimation of tryptic activity in the bowel by measurements of the amino acid (glycine) content of the blood following the ingestion of gelatin or casein, preferably gelatin.^{4,5,6} Estimations of vitamin A⁷ in the blood following ingestion also have been used in the detection of fibrocystic disease of the pancreas. Counts of the chylomicron (emulsified fat) particles in the blood⁸ before and after the ingestion of 30 cc. of cream per kilogram of body weight have been used to detect deficient pancreatic secretion into the bowel. With fibrocystic disease, there is no postprandial increase of the chylomicrons of the blood. This demonstrates decreased or absent absorption of fat from the bowel and reflects the deficient pancreatic enzyme activity.

A method for the quantitative estimation of the esterified fatty acids (fat) of the blood before and after a test meal of cream by a method developed in the laboratory at St. Luke's Hospital has^{9,10,11} enabled a chemical approach to the problem. When applied to patients with fibrocystic disease¹², the lipids of the blood, following ingestion of 36 per cent cream in an amount of 4 gm. fat per kilogram body weight, there was no or only a slight increase over the initial fasting level value. Children and infants without pancreatic disease and the associated dysfunction had the usual high postprandial elevation of the esterified fatty acids of the blood.

The following report describes the tissue changes in a patient with fibrocystic disease of the pancreas and lungs:

A 13 year old youth entered St. Luke's Hospital on March 16, 1954 in the care of Doctor Robert Keeton and died on March 27, 1954. He

had been a patient in several hospitals since the age of 2 with a diagnosis of fibrocystic disease of the pancreas. His illness was associated with bouts of lung infections. Three weeks before admission he developed generalized edema and his urine excretion decreased to 500 cc. in 24 hours. His temperature upon admission was 99.8°F., his pulse was 98, and his respirations 40 per minute. The blood pressure was 130/50 mm. Hg. The patient was cyanotic and edematous; his abdomen was distended and the large, tender liver reached almost to the iliac crest. The lungs had moist rales. The blood had 3,110,000 erythrocytes and 13,300 leukocytes per c.mm. and 6.8 gm. per cent hemoglobin. The total nonprotein nitrogen of the blood was 37 mg. per cent and the sugar was 94 mg. per cent; the total serum protein was 7.9 gm. per cent of which 1.95 gm. were albumin and 5.95 gm. were globulin. The urine had quantities of albumin, hyaline casts, erythrocytes, and leukocytes. A roentgen film demonstrated a large heart and mottled lung fields. The patient improved temporarily, then grew worse, and died 11 days after admission.

The essentials of the anatomic diagnosis are:

Fibrocystic disease of the pancreas

Marked chronic catarrhal tracheobronchitis

Marked emphysema, bronchiectasis, hypostatic hyperemia and bronchopneumonia of the lungs

Moderate hypertrophy of the myocardium and dilatation of the chamber of the right ventricle of the heart

Chronic passive hyperemia of the liver and spleen

Ascites

Clubbing of the fingers and toes

The significant details of the complete necropsy report are as follows: The edematous, emaciated body of this boy weighed 60 pounds and was 144 cm. long. The abdomen contained 150 cc. of a clear yellow fluid. Each markedly emphysematous and hypostatically edematous and hyperemic lung weighed 450 gm. The lower lobe of the left lung was consolidated with bronchopneumonia. Surfaces made by cutting the lungs were hyperemic and edematous. The lumen of the bronchioles had fusiform and sacular dilatations and was filled with quantities of a thick mucinous secretion. The lower lobe of the left



Figure 1. Photograph illustrating the pancreas. The usual lobular structure of a pancreas is replaced by

stroma and fat tissues with many small cysts. A pancreatic duct was not found.



Figure 2. Photograph illustrating chronic bronchiectasis of the lungs.



Figure 3. Photograph illustrating chronic bronchiectasis, focal abscesses, and bronchopneumonia on surfaces made by cutting the lungs.



Figure 4. Photograph illustrating the nephrosis of the kidneys.



Figure 5. Photograph illustrating the hypertrophied myocardium of the heart.

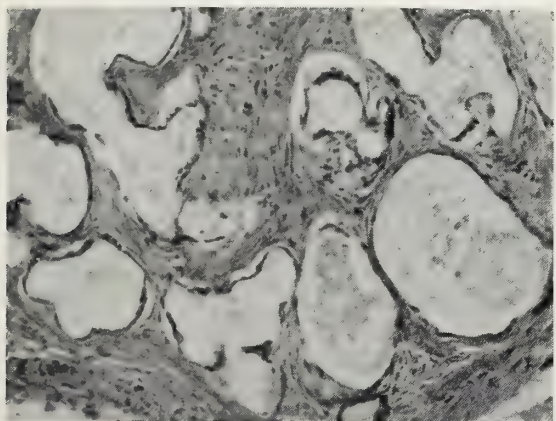


Figure 6. Photomicrograph illustrating the fibrous tissue replacement of the pancreas tissues and the multiple cysts.

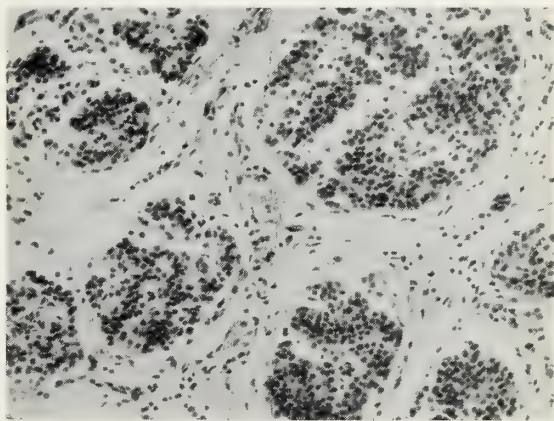


Figure 7. Photomicrograph illustrating the hyperplasia of the islets of Langerhans in the pancreas.

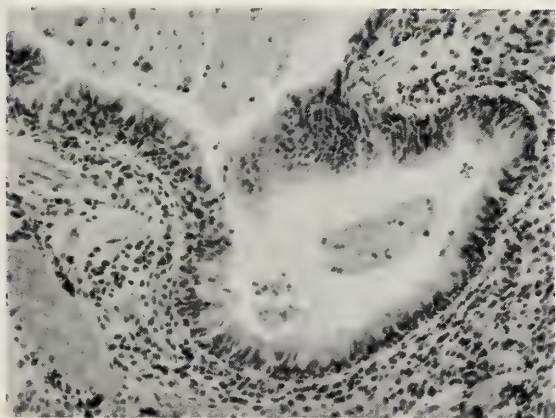


Figure 8. Photomicrograph illustrating bronchiectasis and chronic catarrhal and exudative bronchitis of the lungs.

lung had a pneumonic consolidation. (Figures 2 and 3).

The large heart weighed 240 gm. but had no valvular or myocardial changes except hypertrophy (Figure 5). The pancreas weighed 45 gm. and was a tough, gray, fibrillar tissue without the usual lobules (Figure 1). Many broad surfaces made by cutting the pancreas were gray fibrous tissues with small cysts filled with a thin clear fluid. A definite pancreatic duct was not found.

The liver weighed 760 gm. and had the changes of chronic passive hyperemia. The extrinsic bile ducts were patent. The spleen weighed 75 gm., the nephrotic kidneys 135 and 149 gm. (Figure 4), the brain 1335 gm. Except-

ing edema there were no noteworthy changes of the brain.

Histologic preparations of the pancreas were mainly fat and connective tissue stroma. Many cystlike structures were in these supporting tissues. These varied in size and were lined by low cuboidal or flattened epithelial cells (Figure 6). The islets were abundant and there was marked hyperplasia of the islet cells (Figure 7). The sections of the lungs demonstrated marked chronic bronchiectasis, chronic catarrhal and exudative bronchitis, regional chronic emphysema, focal acute bronchopneumonia, fibrous scars, and foci of chronic granulation tissues. (Figure 8)

COMMENT

These comments on fibrocystic disease review the basic tissue disorders and the resultant disturbance of physiologic functions that occur in the pancreas. The gastrointestinal symptoms are directly related to hyposecretion of pancreatic enzymes into the bowel although the functions of the tissues (islets) concerned with the internal secretion are not disturbed.

Diagnosis of the disease can be made directly by an assay of the enzyme activity in aspirated duodenal fluids. Technical difficulties may compromise the results with this procedure. An evaluation of these pancreatic enzymes indirectly by analyses of the blood for absorption products following test meals of protein (gelatin), vitamin A, and fat (cream) afford less troublesome laboratory methods for diagnosis. The chemical evaluation of the degree of a postprandial hyper-

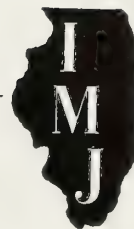
lipemia by estimations of the esterified fatty acids of the blood in laboratories equipped to make these analyses, is a relatively simple procedure for demonstrating normal or hyposecretion of pancreatic enzymes into the bowel.

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EDITORIALS



Exfoliative cytology in cancer detection

In the 40 years since Dr. G. N. Papanicolaou first studied cells exfoliating into the vagina of rodents, the technique of exfoliative cytology has developed into a useful tool for detecting early or occult malignancy. Release of the new American Cancer Society film, "Time and Two Women" will give further impetus to the use of this technique in finding unsuspected cancer of the uterine cervix. Because of the increased demand for service likely to result from showing of this film, it is worthwhile to evaluate the present status of exfoliative cytology as a diagnostic tool.

It has several advantages over other presently available methods of unearthing malignancy. Neoplastic cells can be identified in the accumulated secretions before grossly visible changes take place even on exposed surfaces, making possible the early detection of malignancy. Secretion pools are likely to give a fairly representative sampling of cells from the whole area drained by the pool, making it possible to locate small and limited neoplasms. Cytology requires little of the clinician's time and causes no discomfort to the patient.

Since the technique has been shown to be capable of a high degree of accuracy, it would seem to be a nearly ideal method for cancer screening. But its pitfalls and drawbacks are

worthy of consideration. Smears must be fixed, while still wet, in equal parts of ether and alcohol; those not stained immediately after fixation must be protected with a drop of glycerine. Problems created by poor smears and improper fixation and preservation can be solved at the local level by direct consultation between the cytologist and the clinician. Lack of information on smears sent to a remote center may result in a guessing game to the detriment of the patient.

The clinician recognizes the limitations of cytology. The technique supplements clinical evaluation of the patient but does not replace a careful history and thorough physical examination, nor does it obviate the need for adequate biopsies. Cytology does *not* establish a diagnosis.

This method also, has certain drawbacks for the pathologist. Examination and interpretation of the smears is a monotonous and time consuming operation. At least seven to 10 minutes must be spent screening each smear for abnormal cells and few screeners can spend more than four hours a day, without excessive eyestrain and fatigue. Since two smears frequently are made on each patient, this means that one washer can handle only about 12 cases per day. The present short supply of technician screeners would have to be supplemented by a tremendous force of extensively trained people to survey the population for cervical cancer, a disease now decreasing in incidence. The yield of unsuspected

carcinomas varies in reported series, depending upon many factors. Novak estimated that on an average, 500 hours of work are necessary to detect one cancer in an asymptomatic group of women.

The limitation of a smear preparation to one organ or region of the body is another drawback. It could be corrected only by multiple smears and correspondingly increased examination time. Reported results in the detection of endometrial carcinoma by vaginal smear vary from worthless to a maximum of 70 per cent claimed by the most enthusiastic cytologists. Thus a negative vaginal smear report may give a patient with endometrial carcinoma a false sense of security.

The value of exfoliative cytology in detecting cancer in other locations varies but nowhere approaches its reliability with cervical cancer. Because of the tremendous manpower necessary to examine smears from just one organ of a significant segment of the population, and the inherent limitations of the method, it should not be considered the ultimate answer to cancer detection on a routine screening basis. Research should be continued on other techniques to improve or supplement cytology, making possible a greater yield per man hour invested. Some plans currently under investigation include more specific stains for malignant cells, electronic scanners, and enzymatic screening tests such as the determination of beta glucuronidase in the vaginal fluid.

The Illinois Society of Pathologists endorses cytology as the best method presently available for early detection of cancer of the cervix and for several years has maintained study sets of cytologic slides for the use of its members. According to a survey by the College of American Pathologists in 1955, 69 Illinois pathologists were doing a total of 32,531 cytologic examination per year. The number of participating pathologists and of examinations has increased since then. The Illinois Society and its member pathologists are willing and anxious to help extend this service through the co-operation of the clinicians of Illinois. Facilities are being expanded and additional personnel are trained locally and under the sponsorship of the American Cancer Society. This service can be given best by local arrangements between the clinician and the pathologist who will interpret the smears. When no pathologist is available locally, the

officers of the Illinois Society of Pathologists will assist physicians in arranging for interpretation of cytology smears. Whether such smears are to be used in routine screening of asymptomatic women or will be taken only under specified circumstances can best be worked out at the local level.

Dennis B. Dorsey, M.D.



Phony physicians

The recent disclosure that Peter J. Frank, the 31 year old former mental patient, was posing as Dr. Edwin Galler serves to demonstrate how easily the public and the medical profession can be deceived.

Physicians are licensed by the state and as a rule, no one asks members of the medical profession to produce their credentials. It is for this reason that the license to practice should be displayed prominently in the office.

At the time of this writing the outcome of the case is uncertain and the extent of Mr. Frank's misdemeanors has not been aired thoroughly. Our opinion at present is that he is fully cognizant of what he has done. Most of the famous quacks in history have been smart operators and Frank is no exception.

Preventing fake doctors from practicing in Illinois is a function of the Department of Registration and Education and of the state's attorneys. No medical organization has the necessary policing or investigative powers.

The Department of Registration and Education is now engaged in compiling a list of men and women licensed to practice medicine in Illinois, as required by the amended Act. It expects in the near future to make this list available to county clerks and other interested persons. The list will contain the names of men and women licensed to practice but not the quacks. Since Frank was posing as Dr. Edwin Galler, his name might have appeared on this list.

Coroner Walter E. McCarron suggested that medical societies police the medical profession. The extent to which this could be done is limited. The most severe penalty the medical society can impose is to drop unethical physicians from membership. This is in contrast to the original function of the medical society which was to encourage its members to practice the highest type of

medicine. Mr. McCarron also charges laxity in the issuance of death certificates. It is the duty of health departments to uncover quacks who are not entitled to sign death certificates.

Mr. John W. Neal, general counsel for ISMS, has tried for over two years to get more severe penalties for unauthorized medical practitioners but the legislature has killed bills directed along this line. The present penalties are so light they do not deter charlatans.

Many hospitals are criticized for their strict requirements for membership on the regular and courtesy staffs. We wonder how many hospitals actually require a letter from the applicants' medical school, local medical society, the AMA, or the Department of Registration and Education. A hospital should not turn down a physician in an emergency but there is no justifiable reason for allowing courtesy privileges to continue unless his record is investigated thoroughly and found satisfactory.

One physician may fraternize with another without needing proof that both are bona fide medicos. On the other hand, the physician who turns over his practice or refers his patients to an unknown colleague is unfair to his patients. It is mandatory to obtain the best substitute available. The least of the requirements is a diploma from a grade A medical school and a certificate of state licensure.

We hope that the following benefits will emerge from the case of Peter J. Frank:

State licensing of the many independent telephone answering services that recommend physicians for emergency calls.

The enactment of stricter licensure laws for medical practitioners. Some persons with less training than Mr. Frank are allowed to practice the healing art in Illinois. It is true they have a limited license but such licenses are easy to stretch. Too many persons are entering the practice of medicine through the back door.

Our method of practice is accepted by more than 90 per cent of the people, and we have built it up from bloodletting and purging to its present state. It is high time that our legislative bodies put more teeth into the laws to protect our methods of practice.

More funds must be made available for adequate policing of the laws.

Nutrition series

The science of nutrition has been growing in importance and scope constantly since its formal establishment as a specialty 25 years ago. Though the diseases of undernutrition largely have been controlled in the United States, the increasing complexity of the processing and distribution of a great diversity of foodstuffs poses further questions. Investigators are directing their particular attention to the possible relationships of dietary factors and the chronic degenerative diseases, including important unsolved cardiovascular disorders. To keep the medical profession better informed on the rapid changes in this area, the Nutrition Committee of the Chicago Heart Association is sponsoring a monthly series of brief review articles by recognized authorities in this sphere where cardiology and nutrition meet. These articles will be published in the journal at monthly intervals.

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Auto accidents kill more women than do other mishaps

Motor vehicle accidents far outrank all other types of fatal accidents among women under 65 years of age. The majority killed are passengers or drivers rather than pedestrians, reports the Metropolitan Life Insurance Company.

About 23,000 accidental deaths occur each year in the United States among women 15 years old and over. Of these, more than 10,000 are killed before they reach 65. In the 15-64 age range, accidental injuries take twice as many female lives as diabetes and about four times as many as tuberculosis.

A study of accidental deaths in 1954-1955 indicates that motor vehicle accidents are responsible for about three fifths of the fatal injuries among white women 15 to 64 years old. Home accidents accounted for only one fifth of the fatalities. Most of the other nonfatal accidents occur on streets and highways, in places used for recreation and sports, and in public buildings, hospitals, and other resident institutions. Few women lose their lives in industrial places, only about 25 such deaths occurring each year.

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Our apologies

The editors regret the omission of Dr. Samuel M. Feinberg's name from the editorial on Hay Fever in the August issue of our journal.

Medical society's exhibit at state fair popular

Two outstanding AMA health exhibits designed for fairs and expositions, "Life Begins" and "We Hear," attracted a large audience at the Illinois State Medical Society's booth at the Illinois State Fair in Springfield in August.

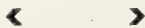
The first exhibit presented in diagrammatic form by plastic blocks the cell division after fertilization, sketches of the development of the fetus in the uterus through the eighth week, and the later development from four weeks through full term.

"We Hear" gave the viewers a basic understanding of the mechanics of hearing as well as of the anatomy of the ear. Three-dimensional models showed the structure of the ear and, by animation, the path of sound from the outer ear through to the brain. Other subjects covered were motion sickness and deafness. Visitors could hear what a deaf person hears through a hearing aid by listening to a recorded message and, finally, could test their own hearing by means of a simplified audiometer.

The booth was again staffed by members of the Woman's Auxiliary to the Sangamon County Medical Society, to whom credit must be given for originating this excellent public medical relations project several years ago.

Literature distributed included pamphlets advocating the free choice of a physician as a "fifth freedom," a brochure telling "how medical men serve you," and a very popular 12-page "family health record" booklet for permanent use. In addition, sample copies of "Today's Health" were distributed.

Arrangements for the exhibit were made by Dr. Jacob E. Reisch of Springfield, councilor for the Fifth District.



Editorials from other journals—

Space is money

Among the problems facing the present effort to set up a government agency to direct a civilian space program is the familiar one of establishing appropriate pay provisions. The administration bill, which was submitted by President Eisenhower on April 2, and the House bill, which

was approved on June 1—the House taking less time than the Senate to reach this stage in the legislative process—agree on the point that the 43 year old National Advisory Committee for Aeronautics should serve as the nucleus for a National Aeronautics and Space Administration. The two bills disagree, however, about the provisions that should be included in the space act to enable the new agency to recruit and hold scientists of the desired talent.

A problem of enlisting scientists in certain fields for government research arises because the salary levels allowed by civil service classifications are not always competitive with those that private companies are prepared to pay. In the past, one solution for certain agencies has been to provide by law a certain number of scientific positions at somewhat higher levels of pay. A second solution, which is less straightforward but which has produced considerably higher salary levels, has been to put scientific personnel on the payroll of private corporations expressly created to evade the civil service limitations.

In facing the problem of salaries for the staff of the space agency, the administration bill takes an approach that could produce salaries considerably above those of the civil service scale. It would exempt the agency from civil service limitations, authorizing it, in the President's words, "to fix the compensation of its employees at rates reasonably competitive with those paid by other employers for comparable work." The House bill recognizes the need for some kind of differential in salary level favorable to the space agency, but on a more modest scale. It would authorize up to 250 scientific positions paying \$19,000 a year, and up to 10 more positions paying \$21,000. At the time the House bill was voted, the maximum pay for comparable scientific positions in other agencies was \$19,000, with NACA, for example, limited to 30 positions.

Unfortunately, any provision that favors one scientific agency at the expense of another creates fresh difficulties—the greater the imbalance the greater the difficulties. One difficulty is that the government, in employing scientists, is to a large extent competing with itself. Agencies compete both with other agencies and with private companies holding cost-plus contracts with the government. The result may be a pay spiral, which is unfortunate for taxpayers if not for the

scientists immediately involved. Another difficulty is the possible adverse effect on the morale of scientists who are not so fortunate as to belong to the favored group.

However, in the short run these difficulties as they bear on the space agency do not carry much weight, and the short run in this case may be the overriding consideration. The problem of trying to keep an unsatisfactory pay system from getting more unsatisfactory may be of less importance than that of providing the new agency with a staff that can produce a vigorous and creative research program. In fact, things being what they are, the degree of favoritism incorporated in the final version of the space bill will be one measure of the importance Congress attaches to the scientific investigation of outer space. *Science*, June 13, 1958.

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The Hartford home-care plan

Gerontologists will be interested in the Hartford Home-Care Plan, a project based on the co-operation of the community's medical and social agencies. It is now in its second year, and is rendering a wide range of services to physicians and the public. Even more extensive benefits are planned for the future. The scheme is not an extension of a hospital service; it is sponsored and financed and operated by the community and is helped by organized medicine.

The Plan began in 1954, when Dr. Alfred L. Burgdorf, the director of health, began discussing the project he envisaged. His idea was to get the voluntary agencies in the community to support a home service for patients who were

chronically ill, or slowly dying of some disease, or slowly convalescing from some disease. His idea was to help physicians by supplying a number of therapeutic skills which, in the past, they had been unable to get for their patients.

The troubles most commonly dealt with have been heart disease, strokes, certain neurologic diseases [including polio], speech disorders, orthopedic diseases, and many long-term illnesses.

What the Plan supplies to the patients is home nursing; health supervision; speech training; physical therapy; occupational therapy; home-maker services; social services; and the loan of hospital beds, wheelchairs, and other such helps.

The special workers send a progress report to the physician at regular intervals. As soon as the patient can get up and out of his home, another type of agency takes over. For instance, there is the Hartford Rehabilitation Center, which can help greatly.

The Home-Care Plan is likely to become more and more used as physicians discover the advantages of getting its help. Constant efforts will be made to keep patients on an ambulatory basis, so as to avoid all but absolutely necessary hospital expenses. It is to be hoped that laboratory services can be added soon, for these can greatly help the physician and the patient.

The idea is such a logical one that before long, it will probably be adopted all over the country. Every physician of any experience knows how hopeless it is to do anything for an old person with a chronic illness simply by calling on him and leaving a prescription. *Walter C. Alvarez, M.D. Geriatrics, May, 1958.*

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Managing Your Money—Part One

THE ultimate goal of every medical man is to be a good physician and to help his patients enjoy the blessings of good health. The accumulation of money never should be his governing principle. If it is, he never should have become a physician in the first place. His recognition by the community and in his own image has no relation to money at all. Success in his work is predicated upon his professional and scientific attainments, plus dedicated service to his patients and neighbors.

Like other men, however, he must live — must have a home, food, clothing, and other essentials. He must be able to educate his children and to enjoy the blessings of vacations and leisure. Above all, he must provide against illness, death, and his ultimate retirement.

Knowing how to manage money is of the utmost importance. Nothing is more tragic than to see a physician give of himself unstintingly to the community and, after a lifetime of service, to see him suffer from lack of financial support when he is ill or aged. What is more pitiful than a widow left without support, especially a physician's widow.

There are no pension funds for the practicing physician and he bears the added responsibility of planning for his own retirement. Insurance, savings, and investments become of increasing importance to him as life travels onwards.

It is the desire of the medical economics com-

mittee to present a series of articles on this subject. The author is by no means a financial expert, merely a physician whose knowledge of this subject is based on his experience in the day to day struggles, the compilations of his mistakes, and his observations of many similar individuals. Professional financial advice is available from banks, investment counsellors, and similar groups. Yet since it is the physician himself who must ultimately decide on this highly personal matter, it is hoped that the ideas expressed in these columns will be of benefit.

The young physician just entering practice today does so in a healthy economic atmosphere. The demand for his services is great. Communities need him and statistics demonstrate that his practice develops rapidly. During the interim before this growth in practice takes place, part time professional jobs in industry, health departments, and clinics are available, as are opportunities in research and teaching.

This rapid financial success can be harmful. There is a temptation to be dazzled by the dollar sign. The physician's first duty is to set his professional goals in order. The value of money is in the happiness it can bring. Since true happiness can never be bought, the young man must concentrate on developing his reputation as a physician, of increasing his knowledge, of protecting his health, and cementing his family ties.

He accumulates money only to help him provide for a good life and future needs.

Perhaps his first awareness of financial problems is related to the income tax but this should not be a problem. Income from professional fees and other sources constitutes gross income. Deductions of all expenses concerning professional activities are made, and the difference is net income. He then deducts allowances for personal and family support, taxes he has paid, and charitable contributions. The remainder is the net taxable income. He then consults a table to ascertain the tax involved, and pays it.

It is advantageous to have an accountant prepare the income tax form. This is not to save money or to increase the deductions, but to present the tax statement properly. The accountant knows what deductions are permissible and keeps the books straight and reliable. Physicians should have no further concern over the income tax problem. It is a privilege to be an American citizen and to support the finest government in the world.

Income tax, with its increasing bite on each increase in income, makes it impossible to accumulate large sums of money through professional fees. The heart of the problem of achieving financial security is based on saving from income and investing wisely.

The copybook maxims of Benjamin Franklin are as sound today as of yore. A penny saved is assuredly a penny earned. Elementary principles govern this action. Living well within one's means is basic. Avoid borrowing whenever possible as interest rates are high and long term loans and mortgages are dangerous in case of illness and subsequent lack of income.

A cash reserve is the primary requirement. There is still nothing like money in the bank. A checking account is a business necessity; the balance should be enough to cover the usual professional and household expenses for the immediate future and sufficient to make this a cost free account. All monies over and above this should be deposited in a savings account.

The savings account is the simplest form of investment. Its advantage is federal insurance of the principal up to \$10,000. If additional savings are desired, it is better to place them in a second account to enjoy the insurance protection. Banks vary in the interest rate paid on savings accounts. At this writing, it runs from 2% to

3%. Since banking by mail and check is so simple, you need not depend upon local rates of interest but can utilize banks in any section of the country. Just be sure that the savings are in banks insured up to \$10,000 by Uncle Sam. Also study the requirements for withdrawing funds.

The amount to be kept in a cash reserve is personal in nature. A rule of thumb is to have enough to cover all expenses for a six month interval without income. To place funds in any other investment in lieu of a cash reserve is risky because you may be compelled to dispose of investments at an inopportune time. Regardless of inflation, cash is nice, and must be readily available.

Savings and loan organizations offer excellent opportunity for surplus cash funds or part of cash reserves. First, make sure that the account is insured by the government. Interest rates vary from $3\frac{1}{4}\%$ to 4%. This offers a slightly better return than a savings account does, but withdrawal of the principle may not be as easy. Most savings and loan associations require 30 days to several months' notice. Part of the cash reserve can be so invested, since the principal is not disturbed and the income is established in advance. Banks and savings and loan companies charge the going rate of interest, depending upon the economic state of the country.

The next step to consider is insurance. It must be custom made for the family. This presents a tremendous individual problem and demands competent study. The essential principle is to deal with an established, reliable company and then to get "bids" from agents representing several companies. An unmarried physician may be concerned with only health and accident insurance for himself. If his death will change the economic status of another person, he will need life insurance.

If married with no children he may wish to use funds to educate his wife so that she could support herself if necessary, or he may feel that such funds had better be utilized to buy life insurance. Certainly hospitalization, health, and accident insurance become a necessity. When children are born, the insurance problem becomes more complex and must be reviewed thoroughly. Insurance is a living force. Since our needs and resources are constantly changing, the insurance program needs revision at regular intervals.

Every valuable possession must be insured.

The home, auto, jewelery, furs, art objects, and household furnishings all have values which must be insured against loss and/or destruction.

When the young physician has no debts, has money in the bank with sufficient cash reserves to meet his needs, and a full insurance program he can then turn to investments.

The principle of any investment is to obtain an income from the money invested, to increase the principal, and to protect against inflation and depression. In boom times, when everyone has money and the demand for goods and services is great, prices go up and the value of the dollar goes down. Since corporation profits increase in these times, the best hedge against inflation is to own common stocks and share in these increased profits. On the other hand, during a depression the demand for goods and services is not great and corporations may not only not make profits, but may lose money. Common stocks are then of questionable value, and cash is king.

Since nobody, especially a physician, can predict future economic changes, protection against both inflation and depression is needed. The technique of so doing is the secret of sound investing, but that is another story.

The most liquid of all investments, other than cash, is U. S. government bonds. Series E and Series H are redeemable upon demand at a moment's notice. Our government has never failed to acknowledge a demand to cash a government bond. The bond can be bought and cashed in any bank, without any red tape. Series E accumulates interest, while Series H pays interest semi-annually. The only disadvantage is that the interest rate is small at first, and large near the due date of maturity. Only a small portion of the cash reserve should be invested in this manner. It would be bad financing to be forced to cash the bond just as the holder is receiving the maximum amount of interest.

An accumulation of United States government bonds of this type is the finest investment in the world. Cash reserves, checking, savings, insurance, and government bonds are the essential elements to combat the effects of depression, illness, or death.

This is the road to successful investment and financial peace of mind. It is not difficult to accomplish. Best of all, it will leave your mind free to continue your education, to practice your profession on a full time basis, to maintain good health, and to perpetuate the pursuit of happiness.

J. R. W.

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CORRESPONDENCE



Clinics for crippled children listed for November

Twenty three clinics for Illinois' physically handicapped children have been scheduled for November by the University of Illinois, Division of Services for Crippled Children. The Division will count 19 general clinics providing diagnostic orthopedic, pediatric, speech, and hearing examination along with medical social and nursing service. There will be 2 special clinics for children with cardiac conditions, 1 for children with rheumatic fever, and 1 for cerebral palsied children.

Clinics are held by the Division in co-operation with local medical and health organizations, both public and private. Clinicians are selected among private physicians who are certified Board members. Any private physician may refer to or bring to a convenient clinic any child or children for whom he may want examination or consultative services.

November 4 — Macomb, Phelps Hospital

November 4 — Pittsfield, Illini Community Hospital

November 4 — Shelbyville, Methodist Church

November 5 — Hinsdale, Hinsdale Sanitarium

November 5 — Fairfield, Fairfield Memorial Hospital

November 6 — Carlinville, Carlinville Area Hospital

November 6 — Sterling, Community General

November 7 — Chicago Heights (Cardiac), St. James Hospital

November 11 — East St. Louis, St. Mary's Hospital

November 11 — Peoria, Children's Hospital (St. Francis)

November 12 — Joliet, Will County T. B. Sanitarium

November 13 — DuQuoin, Marshall-Browning Hospital

November 13 — Springfield, St. John's Hospital

November 18 — Alton, Memorial Hospital

November 18 — Casey, Casey High School

November 19 — Evergreen Park, Little Company of Mary Hospital

November 19 — Springfield (Cerebral Palsy), Memorial Hospital

November 20 — Decatur, Decatur-Macon County Hospital

November 20 — Elmhurst (Cardiac), Memorial Hospital of DuPage Co.

November 20 — Rockford, St. Anthony's Hospital

November 25 — Effingham (Rheumatic Fever), St. Anthony Hospital

November 25 — Peoria, Children's Hospital (St. Francis)

November 26 — Aurora, Copley Memorial Hospital

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Crippled children meeting

The annual convention of the National Society for Crippled Children and Adults will be held in the Statler-Hilton Hotel, Dallas, November 16-20.

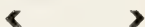
Chicagoan installed head of U.S. section, I.C.S.

The second anniversary of the formation of World Federations of Surgeons on a continental basis within the structure of the International College of Surgeons was observed in Chicago, September 19. At the same time, the College held its installation of officers.

Dr. Henry W. Meyerding of Rochester, Minn., was installed as president of the parent organization; Dr. Edward L. Compere of Chicago became president of the United States Section; and Dr. George J. Streat of McGill University, Montreal, assumed the presidency of the Canadian Section.

Dr. Max Thorek of Chicago is secretary-general of the College and Dr. Ross T. McIntire of Chicago is executive director.

The need for the formation of a World Federation of Surgeons developed as a result of the rapid growth of the International College of Surgeons since its founding in Geneva, Switzerland, in 1935, by Dr. Thorek. Four units have been established, covering North America, Central and South America, Europe, and Asia. The active sections of the College in 40 countries form the nuclei of the continental federations comprising 13,000 members.



To give advice to parents of young deaf children

An information series for parents of deaf children, sponsored by the Advisory Committee on Hearing Conservation and Rehabilitation of the Illinois Commission for Handicapped Children, will be held at the Chicago Hearing Society, 30 West Washington St.

The series, to be held on six successive Wednesday evenings, October 22 through December 3, is designed to give parents information necessary to understand the handicap of deafness and to help their child in his early critical years. Speakers will include physicians, teachers, and technicians.

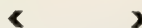
Admission is by referral from the family physician, otologist, pediatrician, public health department, or speech and hearing clinic where the child is known. Applications may be obtained from the Commission for Handicapped Children, 160 North LaSalle St., Chicago 1.

Dr. P. D. White to address Heart-in-Industry meeting

Dr. Paul Dudley White, Boston cardiologist, will be a luncheon speaker at the 6th annual Heart-in-Industry Conference at the Hotel Sherman, Chicago, November 14. Mr. Joseph L. Block, president of the Inland Steel Corporation, also will be a speaker.

Dr. Oglesby Paul, associate professor of medicine at the University of Illinois College of Medicine, will discuss the cardiac worker at the morning session.

The conference will be sponsored jointly by the Chicago Heart Association and the Chicago Association of Commerce and Industry. Further information may be had by writing to the Chicago Heart Association, 69 West Washington St., Chicago 2.

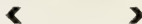


Chicagoan to direct course in nasal surgery

The department of otolaryngology of the College of Medical Evangelists and the department of otolaryngology of the University of Southern California School of Medicine, Los Angeles, will present jointly an intensive postgraduate course in "Reconstructive Surgery of the Nasal Septum and External Nasal Pyramid" at White Memorial Hospital, Los Angeles, January 6-16, 1959.

The course will be under the guest direction of Dr. Maurice H. Cottle, *professor in the department of otolaryngology*, Chicago Medical School, and with the co-operation of the American Rhinologic Society. There will be lectures, surgical demonstrations, anatomical exercises, seminars, and case presentations. Special emphasis will be placed on the newer concepts of nasal anatomy, embryology, and physiology.

For further information, write Dr. Leland House, 1720 Brooklyn Ave., Los Angeles 33.



Interstate PG assembly to be held in Cleveland

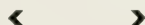
The Interstate Postgraduate Medical Association will hold its 43rd international medical assembly in the Statler-Hilton Hotel, Cleveland, November 10-13. The program will cover many phases of medicine. Because of the growing importance of geriatrics, a half day will be given to that division.

Chicagoans appearing as speakers are: Dr.

Ormand C. Julian, "Indications for Heart Surgery;" Dr. Willis J. Potts, "Congenital Atresia of the Rectum and Its Complications;" Dr. Frank W. Newell, "Drugs Effectively Used in Problems of the Eye."

Mr. Charles F. Kettering, inventor and scientist, who will be the banquet guest of honor, will speak on "An Inventor Looks at Science and Medicine."

For further information, write Dr. Erwin R. Schmidt, secretary, Interstate Postgraduate Medical Association, Box 1109, Madison, Wis.



University of Illinois medical alumni seminar day

The University of Illinois medical alumni seminar day will be held on Saturday, November 22, 1958.

All alumni of the University of Illinois College of Medicine are cordially invited to attend and participate in the following program.

9:00 A.M.—Registration

9:15 A.M.—Remarks of welcome—Dean, College of Medicine, Dr. G. A. Bennett
President, Medical Alumni Association,
Dr. Carl A. Hedberg

9:30-10:30 A.M.—Panel Discussion

"Blood Transfusions and Laboratory Aids in Diagnosis of Medicine Problems"

10:30-10:50 A.M.—Question and Answer Period

INTERMISSION

11:00-12:00 Noon—Panel Discussion

"Recent Advances in Surgery"

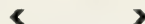
12:00-12:20 P.M.—Question and Answer Period

1:00 P.M.—Luncheon—Illini Union

2:30- 4:30 P.M.—Seminars

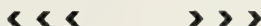
Departments of Medicine, Surgery, Pediatrics, and Obstetrics and Gynecology.

The medical seminar is co-sponsored by the College of Medicine and the Medical Alumni Association. Dr. Louis R. Limarzi, Associate Professor of Medicine is program chairman.



Air pollution conference

The Department of Health, Education, and Welfare of the Public Health Service will hold a national conference on air pollution at the Sheraton-Park Hotel, Washington, November 18-20. The purpose is to assess the progress made by governmental, industrial, and other organizations in the solution of this problem.



Thyroid diet

All hyperthyroid patients who for some reason do not come to surgery early should be treated with a high mineral-vitamin diet, fortified by additional amounts of calcium, phosphorus, and vitamin D. Adequate amounts of calcium, phosphorus, and vitamin D should be given not only in the preoperative and postoperative care of the patient, but also to the inoperable case, to the patient who refuses operation, and to the patient who is being treated conservatively by older medical methods, by antithyroid drugs, radio-

iodine, X-ray, or by a combination of these methods of therapy. The reason is that in the latter forms of treatment there frequently is a delay in obtaining the desired level of antimetabolic effect, and at times this level is never attained. We advocate therapy under these conditions to maintain a positive calcium and phosphorus balance and thus prevent the grave depletion of these elements that inevitably will occur in the hyperthyroid patient who is inadequately treated. *I Darin Puppel, M.D. et al. Some Metabolic Factors in the Treatment of Hyperthyroidism. Ann. Int. Med. June 1958.*

THE P. R. PAGE

John A. Mirt



Public hungry for medical news

The public is hungry for news pertaining to health. This was disclosed in a 254-page report for the National Association of Science Writers based on a survey made by the Survey Research Center, Institute for Social Research, University of Michigan, and financed by the Rockefeller Foundation.

It was found that 41 per cent of the newspaper audience reads everything printed on medicine and welfare. Only two categories make a better showing—local events, 53 per cent, and people in the news, 44 per cent.

Other “all read” classifications (in percentages) are: comics, 33; crime and general science, each 30; national politics, 25; foreign events, 22; sports, 16; and society, 13.

In addition, 35 per cent of readers say they read some articles on health. Another 13 per cent glance at such news, and only 10 per cent have no interest.

Women pay the greatest attention to health information. One out of every two women reads everything published and another 33 per cent read some of the articles. Only local events command greater attention among women readers, and that by a slim margin.

Twenty-eight per cent of the sample reported use of medical news in everyday life; medical items were cited as the source of knowledge about symptoms and treatments. Forty six per cent of the readers want more medical news.

The incidence of a problem is no guarantee of mass media attention and public concern. Mental

illness, a disorder accounting for the use of half of the hospital beds in this country, has been relatively unpublicized. The greatest interest is in heart disease, cancer, and polio, probably as a consequence of the aggressive and long-standing publicity in these fields.

These findings can be borne in mind when planning local lay education campaigns.

PR tip of the month

Medical societies organizing a get-out-the-vote campaign for the November election can get valuable assistance from the Farm Bureau, the AMA “PR Doctor” reports.

In a booklet called “Enroll Your Farm Bureau in the 1958 Good Citizenship Recognition Program” the organization outlines suggestions for building conscientious voting habits in any community.

Copies of the pamphlet and of a give-away leaflet entitled “Yes You Can Elect ‘Fighters for Freedom’ ” may be ordered in bulk from the state farm bureau or the American Farm Bureau, Merchandise Mart, Chicago.

Courtroom procedures explained

The mysteries of courtroom procedure are explained to Macon County physicians in a new “Guide for Physicians and Lawyers” prepared jointly by the Macon County Medical Society and Macon County Bar Association. The booklet not only sets standards for physician-lawyer relationships but also describes common pitfalls, typical situations, and correct behavior for physicians giving medical testimony.

AT THE EDITOR'S DESK



BROCHURE

The first edition (1958) of "Standards for a Blood Transfusion Service," is a timely and valuable brochure prepared jointly by the Scientific Committee of the Joint Blood Council, Inc. and Standards Committee of the American Association of Blood Banks. Copies at 25c each (minimum order \$1.00) may be obtained from the American Association of Blood Banks, 30 N. Michigan Ave., Chicago 2.

OUR NUTRITION IS IMPROVING

The soap box medicine man has been replaced by the door to door vitamin agent. His main selling point is the nutritional inadequacy of U.S. food, a false impression fostered by nutritional faddists. It is surprising how many of these individuals will consume a vitamin capsule daily, yet condemn the addition of the same chemical to their food by the processor. The executive director of the Nutrition Foundation recently complimented the farmers for steadily improving the yield and nutritive quality of our crops. He pointed out that chemical fertilizers have not depleted our soil as many persons have been led to believe by food faddists.

FLU PREDICTIONS

The United States Public Health Service does not expect an influenza epidemic this year. Vaccinations for special risk groups are recommended including industrial workers, hospital staffs, the aged, chronically ill, pregnant women, and

those living close together in institutions. Statisticians for the Metropolitan Life Insurance Company were unable to foresee a repeat performance of the 1957-58 epidemic of Asian influenza. The United States Public Health Service estimated that 20 million Americans were stricken by Asian flu in the last four months of 1957. The peak of the epidemic occurred in October.

PERFECT FIT

Custom made surgical gloves are available for physicians who have fitting problems due to unique sized or shaped hands. Special ceramic molds are made from outline drawings of the physician's hands and the gloves are made from these molds, which are labeled with his name. There is a fee for the design and preparation of the mold, and Pioneer Rubber Company, Willard, Ohio charges its regular price for the gloves.

MASS PRODUCTION PIONEER

The staff of John Wyeth and Brothers (predecessor of the present Philadelphia pharmaceutical firm) was instrumental in designing and patenting the first rotary tablet press in 1872, and two years later, the first automatic version of the machine. The pioneer role of Wyeth Laboratories in the development of mass production techniques for compressed tablets has been cited as the result of a study undertaken by the Smithsonian Institution in Washington, D.C.

RESEARCH

The use in research of a yellow pigment, isolated from the eyes of houseflies, is expected to bring forth new facts about the light sensitive pigments that make color vision possible. Such research ultimately may lead to a better understanding of color blindness, according to Dr. J. M. Bowness, biochemist in the Biophysical Research Laboratory of the University of Pittsburgh Eye and Ear Hospital.

Chemists at Chattem Chemicals, Chattanooga, and at the University of Cincinnati are working on a new class of compounds, called sulfonyl hydrazones. It is hoped they will be effective against staphylococci. Investigation shows that the new drugs act on bacteria in a way entirely different from that of the sulfa drugs, and this discovery supports the idea that they may kill micro-organisms that have become resistant to the sulfas.

Whenever unsaturated fatty acids are indicated, according to Crookes-Barnes Laboratories, Inc., its product—Lenic complex—provides all five-linolenic, linoleic, arachidonic, pentaenoic, and hexaenoic. In addition to a diet booklet, the laboratories have published a 31 page brochure on "A Review of Recent Literature Dealing with the Question of Unsaturated Fatty Acids, Blood Cholesterol, and Atherosclerosis," for the physician.

The egg industry is beginning to fight the restricted cholesterol dietary program by issuing a leaflet, containing up-to-the-minute findings in the fields of egg chemistry and nutrition. It is available from the Poultry and Egg National Board, 8 South Michigan Ave. Chicago 3.

NEW

Deprol, Wallace Laboratories' new drug for depression, is reported particularly useful in

cases accompanied by apprehension, agitation, or rumination.

For juniors, Lilly offers V-Cillin K, Pediatric for infections known to respond to penicillin therapy; for secondary infections associated with measles, mumps, or viral influenza in children; and for the prophylactic treatment of rheumatic diseases.

For seniors, Lilly's product is Mi-Cebrin T, a new vitamin-mineral preparation plus the intrinsic factor is available for patients with gastric atrophy and reduced gastric secretion.

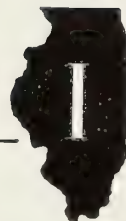
Polaramine, a new antihistaminic substance, is the dextrorotatory isomer of chlorpheniramine. It is given in considerably smaller doses than other antihistaminics and has fewer side effects, according to Schering.

Chemists have split the dual personality of reserpine, which lowers blood pressure and acts as a tranquilizer, and produced two new products. They have come up with a hypotensive agent (methyl carbethoxysyringoyl reserpate) that is as effective as reserpine in lowering blood pressure but only one-twentieth as active as a tranquilizer. Ciba will market this product under the name Singoserp. The new tranquilizer (3-dimethylaminobenzyl reserpate) appears promising as a rapid acting substance and clinical investigation is under way according to Dr. H. B. MacPhillamy of Ciba's research department.

Marlex, a surgical mesh developed by Phillips Chemical Co., is made of high density polyethylene. Dr. Francis C. Usher studied tissue reaction to a number of plastics, and summarized his results as follows: "Both Teflon and Marlex showed considerably less foreign body reaction than did nylon, Orlon, and Dacron when implanted in the peritoneal cavity of dogs. Because it is well tolerated in tissues, and because of its desirable physical properties, Marlex would appear to be a valuable plastic for the fabrication of surgical prosthesis."

◀ ◀ ◀ ▶ ▶ ▶

NEWS of the STATE



COOK

HONORS. Dr. Max Thorek of Chicago was decorated as a Commander of the Order of Merit of the Republic of Italy at ceremonies in the International Surgeons Hall of Fame, Chicago, September 10. The citation is "for outstanding activity in the surgical field and continuous efforts in favor of a better understanding among the surgeons of the world."

Dr. Stephen Rothman, professor of medicine and head of the section on dermatology of the School of Medicine of the University of Chicago, was honored by the Society of Investigative Dermatology, which dedicated the July issue of its journal to him.

GRANT. Richard D. Ekstedt, assistant professor of bacteriology, Northwestern University Medical School, has received a grant of \$10,615. for one year from the Armed Forces Epidemiological board to continue his studies on the mechanisms of the virulence of the staphylococci.

NEW POST. Dr. Lyle A. Baker, 54 chief of medical services at Hines VA Hospital, left to become chief medical adviser for the Philippine Memorial Hospital, Manila. Dr. Baker, a graduate of the University of Iowa Medical College and a World War II medical officer, has been at Hines since 1941 and with the VA for 27 years. He is a diplomate of the American board of

internal medicine and was associate professor of clinical medicine at the University of Illinois.

HOSPITAL APPOINTMENT. Dr. William Francis Jakopich, 54, has been appointed chairman of the department of surgery at St. Bernard's Hospital. Dr. Jakopich has been with the hospital 25 years and was president of the medical staff for 10 years. Many of the facilities to be incorporated into the hospital's new \$2 million five-story addition resulted from a study tour of European hospitals he made two years ago.

RETIREMENT. Dr. Frederick W. Slobe retired as medical director of the Blue Shield and Blue Cross September 1. His successor has not yet been announced.

EFFINGHAM

POSTGRADUATE MEETING. The Effingham County Medical Society was host on September 11, to physicians from a dozen surrounding counties at a postgraduate conference held at St. Anthony Memorial Hospital, Effingham.

The conference was arranged by the Illinois State Medical Society's Committee on Postgraduate Medical Education and Scientific Service. Physicians from the following counties attended: Clark, Clay, Coles, Cumberland, Douglas, Effingham, Fayette, Jasper, Lawrence, Marion, Montgomery, Moultrie, Richland, and Shelby.

Seven physicians and surgeons from the

Loyola University Stritch School of Medicine, Chicago, headed by Dr. George F. O'Brien, chairman of the department of medicine, presented an afternoon program covering diseases of the heart and blood vessels. Other members of the Stritch faculty participating were Drs. John R. Tobin, John B. Hoesley, John V. Condon, James A. Rooney, John H. Isaacs, and Jack Van Elk. Drs. Peter C. Rumore, Joseph R. Burnett, David A. Bristow, and Glenn R. Marshall of Effingham were discussion leaders. Dr. Arthur F. Goodyear of Decatur, Councilor of the 7th district of the Illinois State Medical Society, presided.

An evening session at the Effingham Country Club followed a dinner there, with Dr. Judson V. Phillips of Altamont, president of the Effingham County Medical Society, presiding. Dr. Goodyear spoke on "Medical Organization."

There was a golf outing, with prizes, at the Effingham Country Club in the morning, with swimming as an alternative. At noon, the Effingham County Medical Society was host at a luncheon in the Benwood Hotel. Wives were entertained at a luncheon and card party in the home of Mrs. Henry Thompson, 512 East Jefferson street, and were guests at the dinner and evening session.

KNOX

MEETING. The Knox County Medical Society held its first meeting of the season at the Galesburg Club. Dr. Joe R. Brown, associate professor of neurology, University of Minnesota Medical School spoke on "Modern Treatment of Strokes."

LEE-WHITESIDE

MEETING. Dr. Samuel Behr, Rockford, addressed a joint meeting of the Lee and Whiteside County Medical Societies, September 18 in Dixon, on "Fractures of the Upper Extremities."

PEORIA

MEETING. Dr. J. Garber Galbraith, department of neurosurgery, University of Alabama, spoke on "Cerebral Vascular Disease, Diagnosis, and Surgical Treatment," at the September meeting of the Peoria Medical Society.

POPE

SOCIAL EVENT. Dr. Lewis S. Barger was

honored at a surprise reception on the 50th anniversary of his medical practice September 14, in Golconda. The reception, which took place at the physician's residence, was given by his two daughters, Miss Aletha Barger and Mrs. Jack Quarant.

SANGAMON

MEETING. At the September meeting of the Sangamon County Medical Society, Dr. Carl Moyer, professor of surgery, Washington University School of Medicine, talked on "Fluid and Electrolyte Balance."

VERMILION

MEETING. Dr. R. J. Dancey, Director, Vermilion County Tuberculosis Sanatorium spoke on "Histoplasmosis: Present Knowledge of its Prevalence and Varieed Clinical Forms," at the September meeting of the Vermilion County Medical Society.

GENERAL

NEW OFFICERS. The Illinois Society of Anesthesiologists recently elected the following officers: president, Dr. Huberta M. Livingstone, Chicago; vice-president, Dr. Lawrence D. Ruttle, Joliet; secretary, Dr. Clifford A. Baldwin, Jr., Wilmette; and treasurer, Dr. Robert F. Finegan, Elgin.

APPOINTMENT. Governor William G. Stratton has announced the appointment of Dr. Joseph Marcovitch, as superintendent of Jacksonville State Hospital, effective October 1.

CENTENNIAL CELEBRATION. A century of service to needy citizens suffering from diseases of the eye, ear, nose, and throat was observed when the Illinois Department of Public Welfare, in co-operation with the University of Illinois and the ophthalmological and otolaryngological alumni associations, sponsored a celebration dinner for the Illinois Eye and Ear Infirmary in the Grand Ballroom of the Palmer House, October 15, 1958. Guest speaker for the dinner was Vice Admiral Ross T. McIntire, surgeon general of the United States Navy (retired), whose subject was "Medicine in Our Changing Times." Dr. Otto Bettag, director, Illinois Department of Public Welfare, was toastmaster. Also serving on the committee were Drs. Francis Lederer, James E. McDonald, Burton Soberoff, and several members of the Illinois Department of Public Welfare's general office staff.

LECTURES ARRANGED BY THE ILLINOIS STATE
MEDICAL SOCIETY:

E. WILLIAM IMMERMAN, associate in the Department of Bone and Joint Surgery, Stritch School of Medicine of Loyola University, addressed the Vermilion County Medical Society in Danville, October 7, on "Why Suffer From Backache?"

HARRIET M. CLARK, staff member of the West Suburban Hospital, Oak Park, addressed the Cicero Woman's Club, October 15, on "The Menopause in Relation to Mental Health."

LEON UNGER, associate professor of medicine, Northwestern University Medical School, addressed the Stephenson County Medical Society in Freeport, October 16, on "Allergy of the Nose and Nasal Sinuses."

HERMAN A. LEVY, assistant clinical professor of medicine, University of Illinois College of Medicine, addressed the Stock Yards Branch of the Chicago Medical Society, October 17, on "Diagnosis and Treatment of Acute and Sub-Acute Bronchial Asthma."

FRANCIS O. LAMB, psychiatric consultant to the Glenwood School for Boys, Toman Branch Library Forum, October 24, on "What Can You Do for the Troubled Person in Your Family?"

HOWARD L. PENNING, staff member St. John's Hospital in Springfield, Hancock County Medical Society in Carthage, November 11, on "Obstetrics for the General Practitioner."

RICHARD A. BUCKINGHAM, assistant professor of otolaryngology, University of Illinois College of Medicine, Bureau County Medical Society in Spring Valley, November 11, on "Everyday Coverage of Ear Problems."

FRANK W. PIRRUCCELLO, assistant professor of oral surgery (plastic surgery), Northwestern University Dental School and clinical assistant in surgery (plastic surgery), Northwestern University Medical School, LaSalle County Medical Society in LaSalle, November 13, on "Plastic Surgery."

LOUIS RUBIN, Rockford Clinic, Stephenson County Medical Society in Freeport, November 20, on "Cutaneous Manifestations of Systemic Diseases."

JOHN P. HARROD, JR., assistant professor of obstetrics and gynecology, University of Chicago School of Medicine, Stock Yards Branch of the Chicago Medical Society, November 21, on "Control of Edema in Pre-Eclampsia and Eclampsia."

DEATHS

JOSEPH J. ABBISSINIO*, Chicago, who graduated at Regia Università degli Studi di Roma, Facoltà di Medicina e Chirurgia in 1938, died August 9, aged 48. He was a member of the staff of St. Francis Hospital, Blue Island.

ROBERT M. AFFHAUSER*, Chicago, who graduated at Loyola University School of Medicine in 1922, died August 11, aged 62. He was a staff physician for the Chicago Board of Health.

WILBUR LORENZO BOWEN*, Peoria, who graduated at George Washington University School of Medicine, Washington, D.C., in 1921, died July 5, aged 60, of coronary disease. He was associated with the Methodist Hospital and St. Francis Hospital, where he was president of the staff.

WILLIAM TOWNZEN BOWMAN, Greenview, who graduated at the College of Physicians and Surgeons of Chicago, School of Medicine of the University of Illinois in 1906, died June 9, aged 84.

TULLIE VAN BOYD, East St. Louis, who graduated at St. Louis University School of Medicine in 1910, died July 10, aged 76, of coronary heart disease.

ROBERT GRIFFIN DAKIN*, Sandwich, who graduated at the College of Physicians and Surgeons of Chicago, School of Medicine of the University of Illinois in 1903, died July 1, aged 81, of bronchopneumonia and chronic myocarditis. He was past-president of the DeKalb County Medical Society.

KARL AUGUST DANELL, retired, Glendale, Arizona, formerly of Chicago, who graduated at the University of Illinois College of Medicine in 1904, died August 17, aged 92. In 1954, he was elected to membership in the "Fifty Year Club" of the Illinois State Medical Society. He was an ordained minister in the Lutheran Church and served for some time as assistant pastor in Grace Lutheran Church in Phoenix.

EGBERT K. DIMMITT*, Farmington, who graduated at the University of Louisville School of Medicine in 1909, died July 4, aged 76.

HUBERT JOHN ECKWALL, Chicago, who graduated at Bennett Medical College in Chicago in 1914, died July 9, aged 70, of pulmonary edema and myocardial degeneration.

JOHN EDWARD EUBANKS*, East St. Louis,

*Indicates member of the Illinois State Medical Society.

who graduated at the University of Illinois College of Medicine in 1927, died July 2, aged 62, of empyema, pulmonary infarction, and arteriosclerotic heart disease. He was associated with St. Mary's Hospital in East St. Louis, and Homer G. Phillips Hospital and St. Mary's Infirmary in St. Louis.

OSCAR G. FISCHER, Berwyn, who graduated at the University of Illinois College of Medicine in 1903, died August 17, aged 77. He was a member of the staff of St. Anthony's Hospital.

FRANK L. FORTTELKA*, retired, Riverside, who graduated at the Chicago College of Medicine and Surgery in 1917, died August 17, aged 64. He was former chief of staff at the Bridewell and St. Anthony's Hospitals.

PETER GABERMAN*, Riverside, Cal., formerly of Chicago, who graduated at the University of Illinois College of Medicine in 1928, died September 7, aged 54. He had been assistant professor of medicine at the Chicago Medical School and an attending physician at Cook County and Mount Sinai Hospitals.

JOHN J. GRANT*, Freeport, who graduated at New York University College of Medicine in 1911, died August 23, aged 72.

ASHBY J. HITT, retired, Tower Hill, who graduated at National Normal University College of Medicine, Lebanon, Ohio, in 1893, died in the Huber Memorial Hospital, Pana, June 20, aged 95.

ELMER JOHN KALAL*, Sheridan, who graduated at the University of Illinois College of Medicine in 1937, died in Serena, May 19, aged 56, of cancer. He was a member of the staff of the Horatio N. Woodward Memorial Hospital in Sandwich, and director of the Sheridan State Bank.

CHESTER HENRY KEOGH, Chicago, who graduated at Rush Medical College in 1899, died June 18, aged 90, of arteriosclerotic heart disease.

RALPH G. KLINE*, Hoopeston, who graduated at the University of Illinois College of Medicine in 1916, died recently, aged 71.

GOEKE H. MAMMEN*, Chicago, who graduated at Rush Medical College in 1894, died August 30, aged 86. He was a member of the surgical staff of the Lutheran Deaconess Hospital.

CAREY BOYD MAYFIELD, retired, Sesser, who graduated at National University of Arts and Sciences Medical Department, St. Louis, in 1912, died April 28, aged 72, of aspiration pneumonia and duodenal ulcer.

ALBERT A. MERTZ*, Decatur, who graduated at the University of Michigan Medical School in 1909, died August 7, aged 76. He had served as secretary of the Macon County Medical Society, and he was a life member of the Mississippi Valley Medical Association.

LEONARD J. MURPHY*, retired, Chicago, who graduated at Northwestern University Medical School in 1916, died August 29, aged 76. He had been director of a clinical and X-ray laboratory until his retirement in 1956.

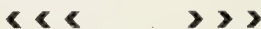
MELVIN THOMAS PENNELL*, Alton, who graduated at St. Louis University School of Medicine in 1941, died July 5, aged 42, of spongioblastoma. He was a member of the staffs of the Alton Memorial Hospital, and St. Joseph Hospital.

MAX SHIFRIN*, Chicago, who graduated at the University of Illinois College of Medicine in 1926, died June 26, aged 57, of malignant brain tumor. He was associated with the Mount Sinai and Weiss Memorial Hospitals.

JOSEPH H. SIEGFRIED*, Lacon, who graduated at the University of Illinois College of Medicine in 1936, died recently, aged 49.

CARLTON E. WITTENBERG*, Woodstock, who graduated at the University of Illinois College of Medicine in 1935, died August 21, aged 51. He was a member of the staff of the Memorial Hospital of McHenry County.

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BOOK REVIEWS



A BIBLIOGRAPHY OF INTERNAL MEDICINE. COMMUNICABLE DISEASES. Arthur L. Bloomfield, M.D. \$10.00. Pp. 560. Chicago, The University of Chicago Press, 1958.

This book contains the older bibliography on 30 internal diseases, going back to 1880. The author believes today's medical writers are limiting the "older" literature to the works of the previous decade and unless they become acquainted with the medical past beyond 1947 they are likely to "relapse into a sort of modern dark ages."

Dr. Bloomfield achieves his objective, giving definitive bibliographies for a variety of communicable diseases. This book belongs in every medical library as a reference work for students, scientific writers, and the physician who is writing a paper or giving a talk. It also will interest the practicing physician who finds relaxation in reviewing the past and ruminating on the research of the pioneers who lifted medicine from an art to a science.

T. V. D.



LABORATORY MEDICINE—HEMATOLOGY. John B. Miale, M.D. \$13.75. Pp. 725, illustrations 192. St. Louis, C. V. Mosby, 1958.

The author has assigned himself the herculean task of writing a three volume work on laboratory medicine for the benefit of medical students, clinicians, pathologists, and medical

technologists. He aims not only to catalogue and integrate the rapidly expanding knowledge of the encompassed fields, but also to induce in the reader a logical system of thinking with reference to laboratory medicine. This is the first volume; others to follow will cover chemical pathology and microbiology.

He has succeeded amazingly well in achieving his goals in this monograph. The style is lucid. His attitude and approach to concepts and problems are generally sound, and compatible with those of other authorities in this field. Difficult and controversial matters are handled in a manner that should be particularly helpful to the novice. For the most part, illustrations, tables, and photomicrographs are pertinent, clear, and of good technical quality. Five color plates, each containing 24 photomicrographs of blood or marrow cells, are good but fall short of ideal.

The first half of the book deals with general concepts of hematology, exclusive of coagulation. This is followed by a section on specific hematologic diseases with particular emphasis on laboratory aids in diagnosis, and with little or no discussion of course, prognosis, management, or autopsy findings. The chapter on bone marrow contains a well selected and helpful series of 37 clinical cases in which history, physical examination, laboratory findings, and discussion appear on one page facing black and white re-

(Continued on page 72)

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BOOK REVIEWS (Continued)

productions of appropriate material such as blood smear, marrow smear, and marrow section, on the next.

There is an excellent chapter on hemostasis and blood coagulation, a field in which the author obviously has had extensive personal experience. On the other hand, this reviewer is somewhat disappointed in the discussion of leukemia. The final 100 pages are devoted to the laboratory techniques of hematology. Details of methods preferred by the author are outlined clearly and concisely with inclusion of helpful and practical critique.

The bibliography is given under broad topic headings at the end of each chapter. The selection is good and includes many recent articles but significant advances of the last year or two have not been included uniformly. No attempt is made to document statements with specific bibliographic references. The index is helpful for locating general topics, but falls short on cross-references and minor points.

This book is recommended as an excellent text for those who are learning the laboratory aspects of hematology, and as a desirable addi-

tion for browsing and reference for those already familiar with the field.

W. R. B.

BOOKS RECEIVED

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

LUMBAR DISC LESIONS, Pathogenesis and Treatment of Low Back Pain and Sciatica. By J. R. Armstrong, M.D., M. Ch., F.R.C.S. Foreword by H. Osmond-Clarke, C.B.E., F.R.C.S. Second edition. The Williams and Wilkins Company, Baltimore. \$12.00.

AN INTRODUCTION TO THE STUDY OF EXPERIMENTAL MEDICINE. By Claude Bernard. Translated by Henry Copley Green, A.M. Introduction by Lawrence J. Henderson. New foreword by I. Bernard Cohen, Professor, Harvard University. Dover Publications, Inc., New York, \$1.50.

BUILDINGS FOR RESEARCH, An Architectural Record Book. Published by F. W. Dodge Corporation. \$9.50.

RETICULAR FORMATION OF THE BRAIN. Editors: Herbert H. Jasper, Lorne D. Proctor, Robert S. Knighton, William C. Noshay and Russell T. Costello. Henry Ford Hospital International Symposium. Medical Book Department, Little, Brown and Company, Boston 6. \$16.00.

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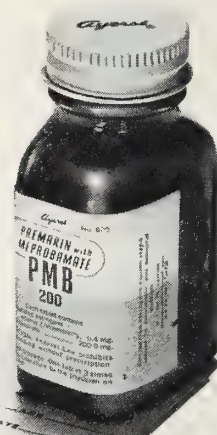
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REFERENCES: (1) Royer, A., in Welch, H., & Marti-Ibañez, F: Antibiotics Annual 1957-1958, New York, Medical Encyclopedia, Inc. 1958, p. 783. (2) Waisbren, B. A., & Strelitzer, C. L.: *Arch. Int. Med.* **101**:397, 1958. (3) Koch, R., & Donnell, G.: *California Med.* **87**:3, 1957. (4) Roy, T. E.; Collins, A. M.; Craig, G., & Duncan, I. B. R.: *Canad. M. A. J.* **77**:844, 1957. (5) Cooper, M. L., & Keller, H. N.: *J. Dis. Child.* **95**:245, 1958. (6) Caswell, H. T., *et al.*: *Surg., Gynec. & Obst.* **106**:1, 1958. (7) Brown, J. V.; Sedwitz, J. L., & Hanner, J. N.: *U. S. Armed Forces M. J.*: **9**:161, 1958. (8) Sarason, E. L., & Bauman, S.: *Surg., Gynec. & Obst.* **105**:224, 1957.

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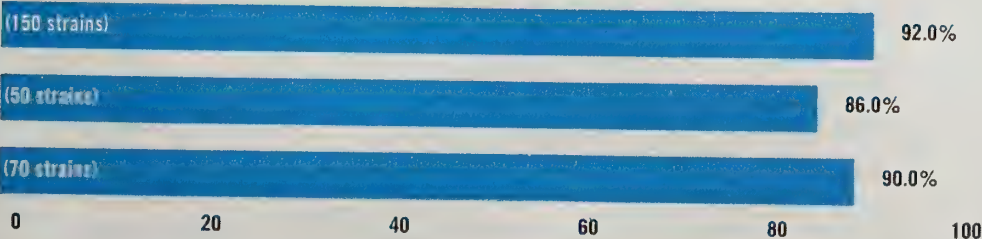
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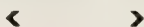
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3 Caesar Portes, 25 East Washington St., Chicago	1959
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3 Earl H. Blair, 6240 S. Kedzie Ave., Chicago	1960
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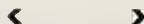
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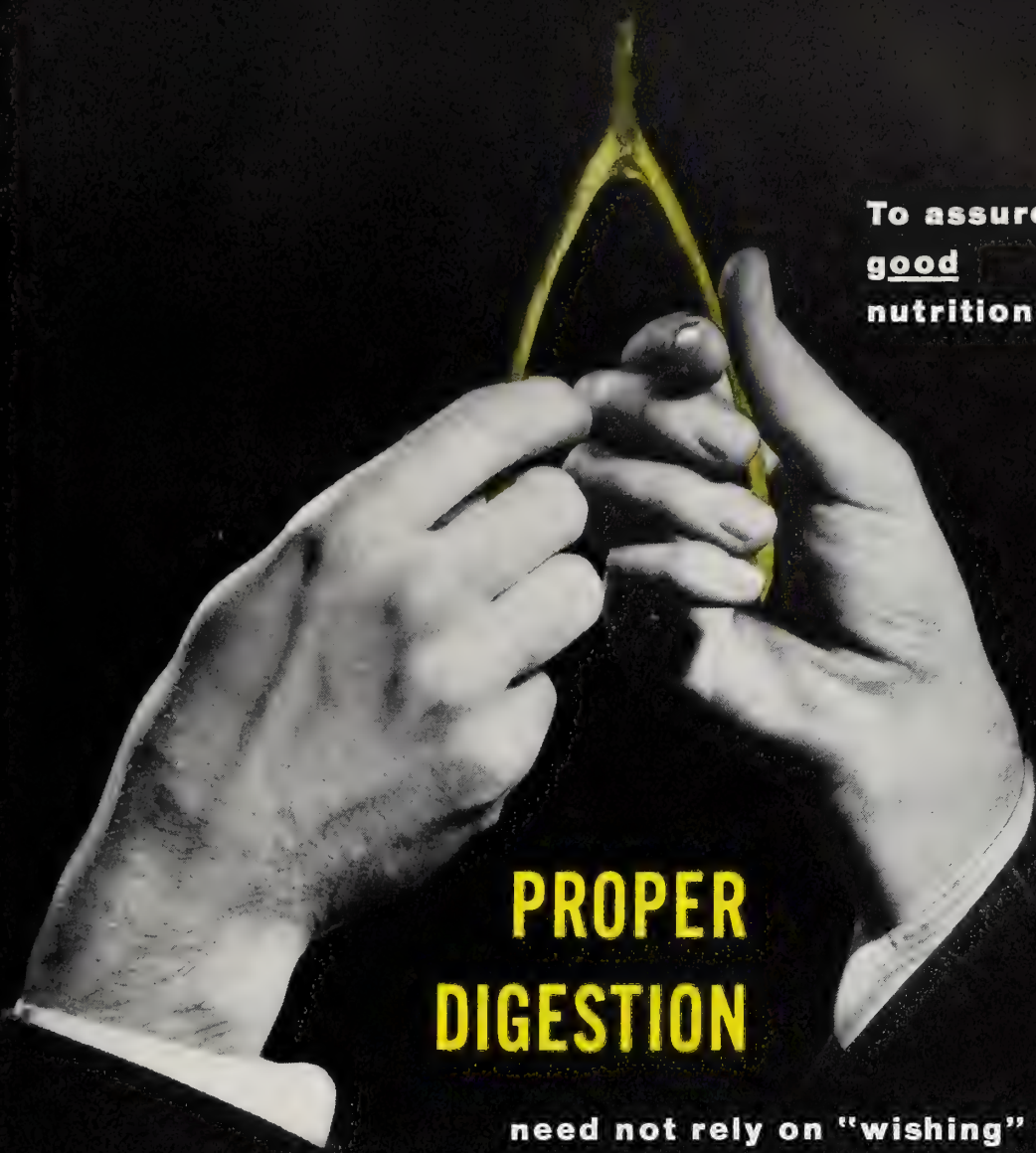
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The Month in Washington



Washington, D. C. — For many years a number of students of government have been searching for some way of checking the growth of the Federal bureaucracy and returning certain functions to the states.

Two particularly vexing problems are involved. Because the Federal government has moved into so many taxation areas, states complain that even if they wanted to regain control over certain programs, they would have no way of paying for them. Also, a foolproof mechanism would have to be devised to insure that the programs didn't break down during the transition and that the states would in fact keep up the activities after U. S. dollars stopped coming.

If the administrative details could be worked out, and if Congress would agree to reverse the trend, a number of U. S. Public Health Service grants programs presumably could be turned over to the states.

President Eisenhower is deeply interested in attempting to turn the tide, and last year the Administration came up with a concrete proposal. It was to make the states completely responsible for the water pollution control operation (\$50 million annually in U. S. grants) and vocational education (\$35 million a year). So the states would have money to finance the work, the U. S. would drop part of its tax on telephone service, inviting the states to levy their own tax.

Congress was cool to the idea. Besides, after giving it more consideration, the then Secretary Folsom of HEW decided it wouldn't work because the low income states couldn't realize

enough from the telephone tax to meet the extra expenses.

But the Administration hasn't given up hope. Supported by the federal-state joint action committee, Secretary Flemming (Folsom's successor) is proposing a new method, one that he thinks will meet the problem of the low income states.

He would shift to the states the same two programs—water pollution control and vocational education. At the same time the U. S. would forego 30% of the present tax it imposes on telephone service and permit the states to levy this amount. In addition, to take care of the poor states, the U. S. would allocate among states an amount equal to 10% of the present telephone tax, distributing relatively larger shares to the low per capita income states.

In dollars, as explained by Secretary Flemming, the states would be losing \$85 million in U. S. grants, but they would have an opportunity to collect a total of about \$109 million on telephone service and receive \$36 million in the new grant arrangement.

In announcing that the Administration was going to try again to have this idea adopted, Mr. Flemming emphasized that both programs were of great value and shouldn't be allowed to "drop through the cracks in the floor" during the period of transition. He noted that under his proposal the U. S. could step in and make a state use the money for the specific purpose if it

(Continued on page 28)

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WASHINGTON (Continued)

showed an inclination to collect the tax but spend the money somewhere else.

The question now is whether Congress will show any enthusiasm over the plan. At any rate, it will be opposed vigorously by the telephone industry and vocational education interests. The latter are fearful that their programs might suffer under all-state operation.

NOTES

HEW is giving careful study to the Bayne-Jones report which proposed a doubling of U. S. medical research spending and early construction of 14 to 20 medical schools. Secretary Flemming told a press conference that final estimates of the cost of carrying out some of the report's proposals are due to be finished in December.

Social Security Administration reports a sharp rise in volume of appeals from applicants denied social security benefits, mostly under the disability section enacted two years ago. The administration's staff of referees has been increased four-fold in two years to handle the work load. Three times as many hearings are held on disability claims as on all others combined.

Social Security Commissioner Charles I. Schottland, back from a month's tour of Russia, reports that nurseries and old people's homes in Russia appear to be "excellently" staffed with one employee for about every three old persons and one for every two and a half children. He points out that a comprehensive social security program is a must in Russia, inasmuch as wages are about the only source of income. When wages halt, the people have only social security to fall back on.

With President Eisenhower's appointment of General Elwood R. Quesada as administrator of the new Federal Aviation Agency, the American Medical Association is renewing its plea for an Office of Civil Aviation Medicine manned by a Civil Air Surgeon.

Mounting protests from medical and other groups have persuaded the Post Office Department to drop its plan to ban the airmail shipment of etiological disease agents. Airlines felt there was a threat of breakage and possible danger to crews and plane passengers. PHS, the AMA and others argued that proper packaging could control this problem.

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The Problem of Arthritis and Psoriasis

EDWARD F. ROSENBERG, M.D., CHICAGO

THE coexistence of a chronic, progressive, destructive form of arthritis with various dermal and ungual manifestations of psoriasis has been observed so frequently, the two ailments are now regarded as having either a common cause or at least a similar pathogenesis. The exact nature of this relationship, however, is still obscure. A study of the literature on the subject indicates merely that this relationship is known through indirect evidence drawn from clinical observations and that no recognizable cause has been detected for either the dermal or the articular components.

Patients with this combination of symptoms may constitute difficult therapeutic problems. They may suffer pain and disability from arthritis and at the same time be subjected to annoyances and embarrassment by the stubborn, evil appearing skin eruption. If therapeutic efforts are directed mainly to the skin, the joints may well continue to impose serious handicaps. Should the skin disorder be neglected in favor of the joints, the dermal lesions may run rampant and cause local discomforts as well as intense psychic disturbances.

From a historical standpoint, an association between psoriasis and arthritis appears first to have attracted the attention of French physicians

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who wrote about this subject in the early years of the 19 century. Devergie⁸ (1859) suggested the term "psoriatic rheumatism" and Bazin⁴ proposed "arthritic psoriasis" as a means of identification. Bourdillon⁵ (1888) defined the two ailments as manifestations of a single disease.

As late as 1935, editors of the first Rheumatism Review¹³ included only a brief section on arthropathic psoriatica, opening with the statement, "psoriatic arthritis has been neglected in the English and American literature." To a considerable extent, Rheumatism Reviews have stimulated further interest and research in this field. As a result, subsequent issues have reported an increasing volume of data derived from a large number of publications on the subject.

A retrospective view of developments of the past quarter century regarding psoriasis and arthritis suggests that students of rheumatic diseases have during this period aligned themselves into groups, depending upon opinions held concerning the nature of this problem. Some have concluded with Bourdillon⁵ that psoriasis and rheumatoid arthritis are ailments with a common pathogenesis, probably an inheritable characteristic. Others have adopted the view that they represent unrelated disorders brought together by chance. Between, are those who have adopted fractions of both views. Sherman¹⁵ observed some patients in whom he believed psoriasis existed accidentally with unrelated rheu-

matoid arthritis; but in others he found a form of arthritis that could be distinguished from the accidental association of psoriasis and rheumatoid arthritis. Still others hold that—at least, in some instances—so-called psoriatic arthritis constitutes a symptom of a distinctive skin disorder and that neither true rheumatoid arthritis nor true psoriasis is present.

Among patients with both psoriasis and arthritis, Hench¹² observed three varieties; One in which psoriasis chanced to occur in individuals with unrelated rheumatoid arthritis; one in which psoriasis provoked a disorder having distinctive features (psoriatic arthritis); patients in whom a destructive and specific change designated “anthropathy” affected certain articulations in psoriatic individuals.

DATA AND OBSERVATIONS

The present study reviews data concerning 50 patients in whom psoriasis accompanied a chronic progressive arthritis. Significant and unusual features of the clinical courses are described together with data regarding results of therapy. Special diagnostic problems are illustrated. Individuals showing psoriasis with associated hypertrophic arthritis were not included in this study.

Age at Onset: Patients with psoriasis and arthritis rarely, if ever, observed the onset of arthritis and psoriasis at the same moment. For the most part, psoriasis came first, and generally was said to have appeared either months or years before arthritis. Observations of patients regarding this point were not always reliable. In many instances, the examining physician suspected that psoriasis had been present—at least, in mild form—for months or years before the diagnosis was made. In some insensitive individuals extensive psoriasis had been overlooked completely or was regarded as one of life’s minor vicissitudes hardly worthy of attention.

The onset of arthritis was generally noted with a good deal more precision, perhaps because of the resulting pain and disability. Among this series of patients, its onset was prior to age 20 in five, between 20 and 40 in 38, and between 40 and 50 years in seven.

Table 1. shows a comparison between age of onset as given for psoriasis and for arthritis among the patients of this series; also age of onset of uncomplicated rheumatoid arthritis as giv-

TABLE 1

Age at Onset Rheumatoid Arthritis as Compared with Psoriasis and Arthritis

Years	Rheumatoid Arthritis	Arthritis & Psoriasis Present Series	
		Arthritis	Psoriasis
0-10			1
11-20	3	2	9
21-30	6	4	19
31-40	17	19	16
41-50	21	23	5
51-60	2	1	0
61-70	1	1	0
Total	50	50	50

en by 50 patients observed consecutively during one year. This table indicates that the age span for onset of arthritis with psoriasis was approximately the same as among persons with rheumatoid arthritis alone. Table 1. indicates also that the most frequent age of onset for psoriasis and arthritis is during the prime years, when family and economic responsibilities are generally at a maximum. The age of onset for psoriasis overlapped that for the arthritis.

Sex incidence of psoriasis and arthritis: A majority of the patients with both psoriasis and arthritis were men (36 of 50), and this predominance among males has been noted by some¹⁶ and not by others.^{17,18} In this feature the present series differed notably from experience with uncomplicated rheumatoid arthritis which affects women more often than men.

Relationship of combined psoriasis and arthritis to hereditary: Occurrence of psoriasis and arthritis among other members of the patient’s family appears to have been extremely rare in these cases. None of the patients were aware of any family member who had both psoriasis and arthritis. Three stated that a parent had had chronic arthritis, probably rheumatoid arthritis, and psoriasis was known to have been present among other family members in six instances (four siblings, one mother, one father).

Characteristics of the psoriasis: The dermal lesions did not differ in appearance from those observed in patients with psoriasis without arthritis. For the most part, the eruption appeared in the form of either plaques, papules, or pustules. Lesions were generally covered with scales which, when untreated, were silvery or mica-like in appearance.

Localization of the dermal lesions was ex-

tremely variable; some showed only scattered lesions, tending to involve elbows or knees; others had involvement of greater areas including face and scalp. Occasionally scales desquamated freely, causing considerable inconvenience from the debris which accumulated in the clothing or in bed at night. Intermediate varieties and stages also were encountered, including some with lesions present only in the scalp or at a few discrete points about the trunk. Some showed lesions only in nails, without involvement of the general skin surface.

Course of psoriatic lesions: This was highly variable. A majority ran a chronic and persistent course. Abrupt and explosive outcroppings occurred occasionally and rather sudden and mysterious episodes of remissions were also described, followed eventually by periods of regression. In two patients, universal exfoliation was observed. This was not accompanied by fever, or by any notable toxicity. In both, onset of exfoliation was accompanied by a profoundly painful and disabling flareup of the arthritis.

Psoriatic involvement of nails was observed in 36 patients. Among 14 in whom psoriasis did not affect the nails, the dermal lesions were severe and widespread. The earliest recognizable changes in nails were longitudinal ridges, rather delicate in appearance and involving the entire nail surface. Subsequently, irregularly shaped opacities were noted, ranging in size from one to three millimeters in diameter and appearing first about the proximal portions of the nail surface. Later these migrated distally as growth proceeded. Sometimes several nails remained normal in appearance while others were badly affected.

Nails severely involved showed various destructive changes. These included tiny pits measuring from one-half to one millimeter in diameter, crumbling or disintegration of free margins, and destruction of overlying nails by hyperkeratotic material formed on the nail beds. Inspection of distal margins of psoriatic nails often disclosed spongy hyperkeratotic material lifting and undermining the nail plate. In some cases, hyperkeratoses affected proximal as well as distal portions of the nails, destroying the overlying nail entirely and leaving only irregular mounds of debris.

Among patients who showed psoriatic involvement of nails, terminal interphalangeal joints of

fingers and toes were frequently but not invariably affected by the arthritis. In this series, advanced psoriatic changes in nails were present in four without involvement of adjacent interphalangeal joints. In two patients, toe nails were involved without recognizable arthritis of adjacent interphalangeal joints.

Findings in biopsy specimens of psoriatic lesions of skin: The histologic appearances of dermal lesions as observed in biopsy specimens from patients in this series is shown in Figure 1, which shows sections from two individuals. These disclose lesions well known to pathologists as characteristic of psoriasis⁶—namely, edema, exudation of inflammatory cells into the dermis, micro-abscesses, and hyperkeratoses. No histologic features were observed by which these specimens could be distinguished from ordinary psoriasis not accompanied by arthritis.

Description of arthritis associated with psoriasis: Although several distinct types of articular disorders were recognizable among patients in this series, classification often was difficult because certain findings were debatable and because features of the various groups were overlapping. Members of the several groups were segregated, as in Table 2.

TABLE 2

1. Chronic progressive polyarticular arthritis without recognizable involvement of interphalangeal joints of toes, or of terminal interphalangeal joints of fingers	21
2. Same with spondylitis	6
3. Chronic progressive polyarticular arthritis with involvement of terminal interphalangeal joints of fingers and interphalangeal joints of toes	19
4. Same with spondylitis	2
5. Spondylitis without involvement of peripheral joints	1
6. Hands and feet "en lorgnette"	1

A majority of the patients presented a picture of chronic arthritis indistinguishable from rheumatoid arthritis. Joints tended to be involved in a symmetrical manner. An irregularly progressive course, leading ultimately to more or less severe dysfunction was the rule. Muscular atrophy and deformities such as usually accompany rheumatoid arthritis were encountered commonly. In 21 patients in this group, terminal interphalangeal articulations of fingers were not involved and interphalangeal articulations of toes were spared. A second group, comprising six patients, showed changes similar to the above in

peripheral joints, and in addition were found to have spondylitis.

The third group, numbering 19 patients, showed chronic articular inflammation involving joints of the extremities with the distinctive feature of arthritis involving the toes and terminal articulations of fingers. Among the individuals comprising this third group were five in whom distinctive destructive lesions designated by Hench¹² as the specific arthropathy of psoriasis, were demonstrated in roentgenograms. These "pencil in cup", "pencil to pencil," and "ball and socket" deformities reflected a severe lytic type of inflammation rarely seen in other articular ailments such as uncomplicated rheumatoid arthritis and neuropathic arthropathies.

Two patients showed arthritis affecting various peripheral joints including terminal interphalangeal articulations of fingers, together with spondylitis. In one, a man of 41, psoriasis accompanied spondylitis without involvement of any joints of the extremities. The spinal disease in this instance could not be distinguished clinically from the spondylitis ordinarily designated rheumatoid spondylitis or Marie-Strumpell's disease. Psoriasis was of moderate severity involving the skin about elbows and knees. A number of psoriatic plaques were present also about the umbilicus and the lumbar portion of the spine. Symptoms of spondylitis had been present for 14 year; psoriasis had been recognized for 10 years.

One patient, a woman of 58, showed a bizarre articular disorder in association with extensive psoriasis. Digital joints of the hands and feet had undergone extensive destructive changes with an accompanying loss of structure of the bones. As a result, the digits were notably shortened, the enveloping skin was folded into accordion-like pleats, and the resulting deformity resembled that which has been designated "en lorgnette." This patient had been aware of arthritis for at least 35 years and had been aware of psoriatic lesions 40 years. The arthritis had become relatively painless and the resulting disability was attributable mainly to hypermobility and loss of control of movements of the digits.

General comments regarding arthritis accompanying psoriasis: Excepting for relatively minor details which distinguished localization of affected joints in certain instances, arthritis did

not differ in appearance from that encountered in uncomplicated rheumatoid arthritis. Some patients showed articular effusions, some acquired flexion and hyperextension deformities, some showed various subluxations. Deviations of fingers in the ulnar direction was a frequently observed phenomenon in advanced cases, and some showed lateral deviations of toes. Various vasomotor disturbances including cold cyanotic extremities, excessive sweating, and capillary dilatations in skin about thenar, hypothenar eminences, and about the beds of the nails also were encountered.

Complications: Uveitis, subcutaneous nodules, and nonspecific urethritis were noted among the patients of the present series.

(a) Uveitis: Severe unilateral uveitis with involvement of the sclera as well as the iris was encountered in three patients. In two this condition had been episodic and had healed without recognizable residue. In a third patient, posterior synechia had interfered with vision in one eye. No examples of perforating nodular scleritis were encountered among these patients.

(b) Subcutaneous nodules: Large para-articular nodules characteristic of rheumatoid arthritis were observed in 11 patients of the first group and smaller nodules located along the course of tendon sheaths and especially about the fingers were present in six. Three patients reported that nodules had appeared and disappeared repeatedly over a period of years. A biopsy specimen of a nodule from the elbow region is shown in Figure VIII. This showed spreading necroses and surrounding inflammation indistinguishable from that seen in nodules of uncomplicated rheumatoid arthritis.

(c) Nonspecific urethritis: This complication was observed in two male patients. Both experienced recurrent episodes of urethral discharge that persisted despite treatment with antibiotics. Both were suspected of having gonorrhea but bacterial smears and cultures were negative for Neisserian organisms in both instances. In one patient, urethritis had persisted for periods of six and eight months; in the second, the duration had been three and four months for two attacks.

Laboratory findings: As a rule, blood counts revealed either normal numbers of erythrocytes or moderate grades of hypochromic anemia. The range of erythrocyte counts observed in numer-

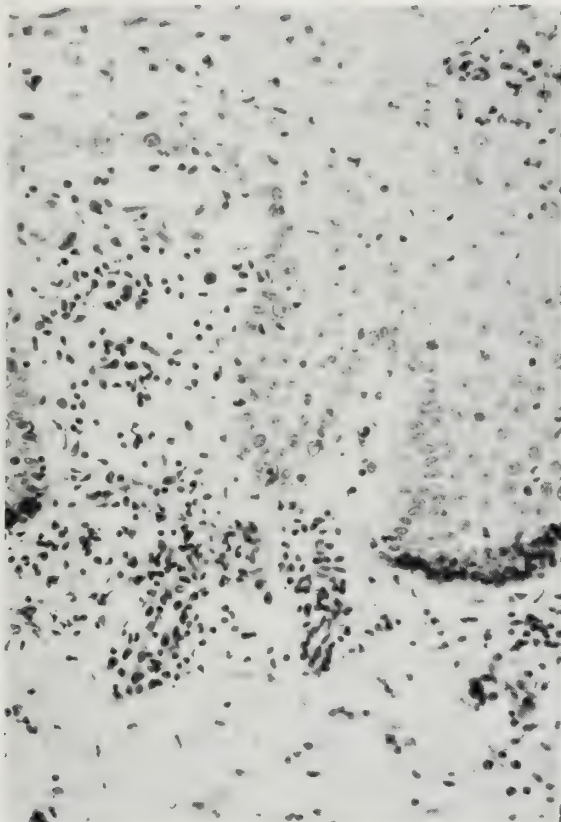
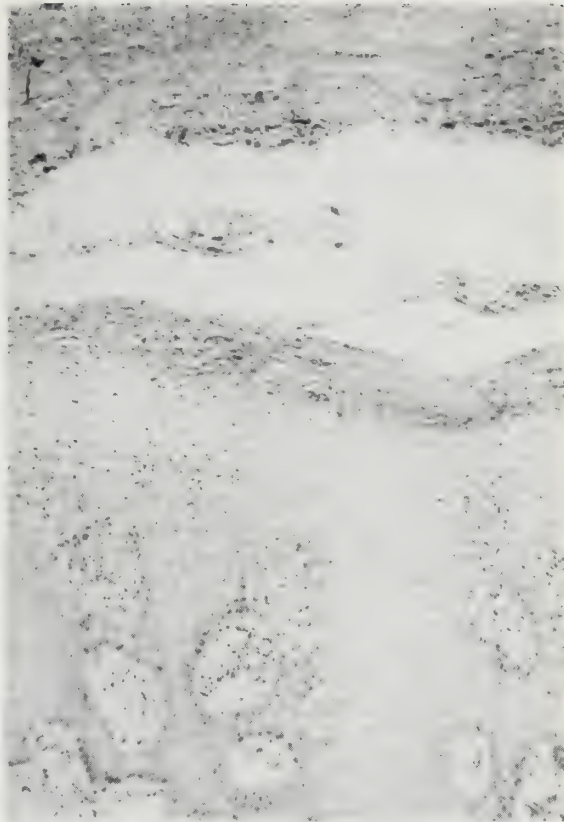


Figure 1. a. Histologic appearance of biopsy specimen from a patient with psoriasis and arthritis. The appearance of the hands of this patient are shown in Figure 4. The section reproduced above shows characteristic inflammation in the form of a micro-abscess in the dermis.



b. Low-power enlargement of histologic specimen removed at biopsy in same patient, showing characteristic lesions of psoriasis, including micro-abscess, hyperkeratosis of epithelial layers, and edema and infiltration of the epithelial structures with a variety of inflammatory cells.

ous tests was 3,100,000 to 5,200,000. Hemoglobin values ranged from 7 to 16.4 grams per cent. Intense activity of the arthritis often was associated with secondary anemia. Total leucocyte counts and differential counts showed no distinctive patterns. The range of total leucocyte count was 5,200 to 15,500 (average 9,100). Serum levels of sodium, potassium, chlorides, urea, creatinine, uric acid cholesterol, and cholesterol esters were found to lie within normal limits. Sedimentation rates of erythrocytes were elevated in 38 at the time of first examination (22 to 90 mm. Westergren).

Examination of synovial fluid: Examination of synovial fluids removed from knees in eight showed total protein levels ranging from 3.9 to 4.8 grams (average 4.2 grams). Cell counts ranged from 900 to 20,500. Cells were identified predominantly as polymorphonuclear leucocytes and only occasionally were other cells in-

cluding plasma cells and endothelial cells identifiable. In many instances, cells were fragmented or took dyes poorly, making identification impossible. Chemical determinations were available for six of the eight synovial fluids studies. These showed glucose 56 to 84 milligrams per cent, uric acid, 1 to 3.2 milligrams per cent, calcium 5.8 to 9.2 milligrams, and phosphorus 4.2 to 4.5 milligrams.

Synovial biopsies: Histologic appearances of synovial tissues removed from patients with psoriasis and arthritis have been variously reported as showing lesions similar to and somewhat different from those encountered in uncomplicated rheumatoid arthritis. In Figure 2, a section is reproduced from synovial membranes taken from a knee in a patient with severe destructive "pencil-in-cup" deformities of the feet. This section showing hypertrophy of synovial villi, edema of the subsynovial tissues, and both diffuse and fol-



Figure 2. Appearance of histologic preparation from synovial tissues removed from knee of patient with psoriasis and associated arthritis which involved interphalangeal articulations of toes, also distal interphalangeal articulations of the fingers. The photograph reflects changes which have been designated as characteristic for the synovial membranes of uncomplicated rheumatoid arthritis—namely, hypertrophy of the villous structures, infiltration with various inflammatory cells, and edema fluid. A nodular or follicle-like collection of lymphocytes is notable in the hypertrophied villous.

icle-like infiltration of various inflammatory cells appeared in no way distinctive from those regularly observed in uncomplicated rheumatoid arthritis.

The photograph in Figure 2 shows tissue from a second instance in which biopsy was performed at the knee joint. A male patient, aged 47, had extensive psoriasis since the late teens. A progressive and deforming arthritis had appeared in the upper and lower extremities at age 32. Interphalangeal joints of toes had been affected, also terminal phalangeal joints of fingers. At the time of an exploratory procedure involving the right knee, synovial tissue was removed for biopsy. This section showed hypertrophy of synovial



Figure 3. Histologic appearance of biopsy specimen from patient with psoriasis and psoriatic arthritis. Hematoxylin and eosin stain. This specimen shows various degenerative changes in muscle fibers resulting in irregular staining, loss of normal striation of muscle fibers, and intense infiltration of the muscle bundle with inflammatory cells.

villi, infiltration with edema fluid and with various inflammatory cells [mainly plasma cells], and various mononuclear types of leucocytes. Occasional eosinophilic and neutrophilic polymorphonuclear leucocytes were observed but these constituted a small minority of the cells. This tissue resembles synovial tissues sometimes found in rheumatoid arthritis but shows no accumulations of leucocytes in follicles such as are seen in the section from Figure 2.

In articular tissues removed by Bauer³ and associates from a patient with severe psoriatic arthritis, articular structures and terminal portions of adjacent bones were replaced by proliferated fibrous tissues showing little or no evidences of inflammation. This lesion was not observed in the material available for the present study.

Other pathologic phenomena of psoriasis and arthritis: Effects on muscle. From the standpoint of clinical observations, muscle tissues

showed changes, similar to changes observed in muscles of patients with arthritis and without psoriasis. Adjacent to affected joints, muscles become atrophic and weakened to a degree dependent upon the severity of involvement of the nearby joints, and related also to the duration of the disease. In far advanced cases, atrophic and wasted muscles were at times responsible for serious difficulties in locomotion, and in some instances interfered markedly with use of the upper extremities.

A woman, aged 42, had psoriasis since age 20 and arthritis since age 25. Arthritis involved upper and lower extremities and in both hands, terminal interphalangeal joints were affected together with psoriasis in adjacent nails. A muscle biopsy, Figure 3, revealed dense inflammatory exudate in interfibrillar spaces especially marked about small blood vessels. For the most part, the cells of this exudate appeared to be lymphocytes and plasma cells. Polymorphonuclear leucocytes were seen occasionally. Some muscle fibers showed severe degenerative changes with loss of striation and abnormal staining reactions.

Histologic features of skin lesions: Microabscesses in the dermis, edema, and various inflammatory infiltrations of the upper layers of the skin, severe keratotic excrescences, and preservation of the basic architecture of the skin characterized tissue removed from a patient with extensive psoriatic arthritis and psoriasis of widespread regions of the skin. The section reproduced in Figure 4 shows the pathologic changes of the skin lesions.

Roentgenographic findings: Roentgenographic findings among the patients of this series encompassed an extensive variety of alterations. Details of the various changes were so numerous that an extensive treatise would be required for their complete description. In brief, these changes may be described as occurring in progressive stages.

Early involvement of peripheral joints often was present without recognizable alteration of roentgenographic appearances. With progression of the process, loss of density appeared indicating osteoporosis of subchondral bone. Further progression resulted in narrowing of interarticular spaces, appearance of cystlike lesions in bone-ends, and various excavations about osseous margins. These resembled roughly in appearance the osseous lesions of gout. These comments



Figure 4. Roentgenographic appearance of distal interphalangeal joint of patient whose hands are shown in Figure V. An inflammatory process has invaded the distal portion of the second phalanx, also the proximal surfaces of the distal phalanx. Loss of bone substance is progressing. The articular surfaces are invaded and cartilage-space has become somewhat narrowed and irregular.

applied to cases in which patients showed arthritis resembling rheumatoid arthritis; also, to those in whom terminal phalangeal articulations and toes were involved. Presence of roentgenographic changes in distal interphalangeal joints and in the toes was considered a distinctive phenomenon *per se*, and whenever observed, such changes were considered as indicating that psoriasis might be present.

More destructive appearances were encountered among patients designated as suffering from "psoriatic arthropathy." Distal portions of



Figure 5. a. Characteristic appearance of a patient with psoriasis and associated arthritis, showing rather asymmetrical involvement of phalangeal articulations, also swelling with partial flexion deformities of distal interphalangeal joints of middle

fingers and left thumb. Several nails show psoriatic changes.

b. Appearance of the fingers of a patient with psoriasis and psoriatic arthritis. Characteristic changes are observed in nails of the first, second, third, and fifth fingers, also swelling and de-

formity of terminal interphalangeal joints of third and fifth fingers.

c. Photograph of feet showing psoriatic changes in nails, also articular swelling of right second toe and left third toe.

some long bones showed more complete deterioration, erosion of portions of shafts to produce the "pencil-in-cup," "pencil-to-pencil," and "ball and socket" appearances. In such instances proximal portions of shafts distal to the pointed bones showed deep excavations of articular surfaces; also various prolongations of articular margins to form a cuplike appearance.

Among patients with spondylitis accompanying psoriasis, osteitis of sacroiliac margins, fusion of sacroiliac joints, and varying grades of calcification of intervertebral ligaments were the rule. These changes were similar to roentgenographic changes observed in patients with uncomplicated rheumatoid spondylitis.

A review of experiences among 50 patients reported herein indicates that present day measures have by no means solved the problem of therapy for psoriatic arthritis. Treatment achieved remarkable success in some, and left much to be desired in others. In general, the approach to treatment was based on the principle that a strong kinship exists between arthritis associated with psoriasis, and uncomplicated rheumatoid arthritis. No single remedy was regularly effective.

Treatment programs were directed toward the separate aspects of the disease and took into account such factors as economic status, altering manifestations of the disease, and psychological makeup of patients under consideration. Rest and planned activities were prescribed in detail. Some, terribly debilitated and suffering from active articular inflammation, required almost constant rest in bed. For those in whom the disease was less active, nearly normal degrees of activity

were permitted. Joints, more acutely affected, were further encouraged to rest through the use of casts, splints, and other supports.

A second phase of treatment involved employment of physical therapy. Apparatus for applying heat was adapted to the individual's situation. Warm tub baths, hot compresses, electric pads, infra-red bulbs, and simple bakers were considered satisfactory. Wherever possible massages were provided as a daily measure and so far as possible, family members were taught to administer massage at home.

Exercises appropriate to individual situations were administered with assistance of family and professional technicians.

Psychotherapy was employed deliberately in many instances, with the primary aim of removing unusual psychological stresses and strains.

Attention to focal infection was confined to a conservative appraisal of teeth, tonsils, sinuses, and other suspected sites. Surgical removal of infected organs was approved only if the infection was proved unequivocally, and if the surgical procedure involved could be accomplished without notable risk.

Chrysotherapy was employed with conservatism and with due regard to the possibilities of toxicity. Occasional patients showed improvement during therapy with gold. However, the variable course of these ailments precluded a precise estimate of this agent. For patients in whom the articular disease was progressive, employment of gold was judged to be a justifiable procedure.

Dietary measures played a minor role in treatment programs. Well balanced diets, adequate in



Figure 6. Feet of patient with widespread arthritis and psoriasis showing collapse or telescoping of digits resulting from absorption of underlying phalanges.

vitamins and containing sufficient bulk to combat constipation, were planned individually. For those who lost weight, an effort was made to increase caloric intake. Overweight patients were encouraged to reduce.

Salicylates, ineffective in relieving the fundamental process were generally effective in providing temporary relief from stiffness and soreness. Small doses of barbiturates were employed to alleviate restlessness and to aid in securing sleep. Narcotics were needed rarely when unusually severe pain was encountered.

Principles approved for the employment of steroids in uncomplicated rheumatoid arthritis were employed for the treatment of these patients. With careful regard to the vicissitudes of steroid therapy, cortisone, hydrocortisone, and other more recent additions to this family of compounds supplemented other measures. Although benefits obtained with steroids could not be separated precisely, notable relief of arthritis was ascribed to the steroid in many instances. These products aggravated the skin lesions in some but benefited many. Direct treatment of dermal lesions with a variety of preparations containing extracts of coal tar and with ultraviolet irradiation was carried out as a routine measure in every instance.

DISCUSSION

Studies of the incidence of psoriasis with chronic arthritis have been reported by many

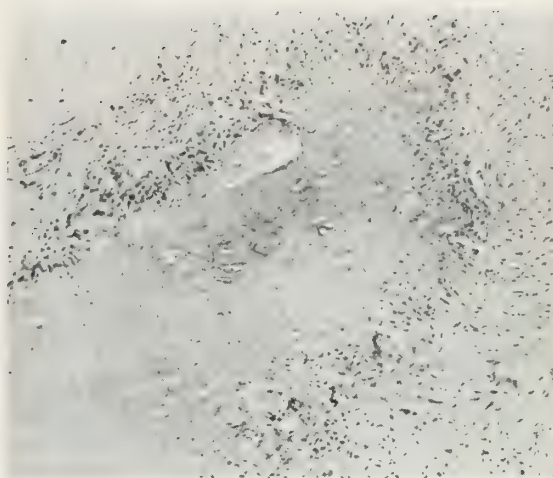


Figure 7. Histologic appearance of subcutaneous nodule removed from patient with psoriasis, chronic articular inflammation with involvement of interphalangeal articulations of toes, and terminal interphalangeal joints of fingers. The nodule, located at the tip of an elbow, had been present at least three years. Hematoxylin and eosin stain. The photograph shows a central necrotic zone surrounded by various inflammatory layers of cells, an appearance characteristic of nodules found in association with rheumatoid arthritis not complicated by psoriasis.

writers in recent years. This material has been summarized recently by Gribble¹⁸ whose tables show the coincidence rate as ranging from 2.6 to 5.6 per cent among several series. The incidence of psoriasis in the general population — as reported from the United States, Denmark, England, and Sweden — has ranged from 0.1 to 1.0 per cent, indicating that psoriasis has been observed at least three times more frequently among patients with chronic progressive arthritis than among the nonarthritic population.

If one approaches the problem of coincidence from another viewpoint—that is, from an analysis of the incidence of arthritis among patients suffering from psoriasis — the results are even more suggestive of an entwinement of the two conditions. Various studies of this relationship have shown that arthritis may be expected as a complication in from 1:10 to 1:4 in persons with psoriasis. Differing opinions as to what might rightfully be designated arthritis must account to some extent for the variations in observations reported by writers on this subject.

What is psoriatic arthritis? One cannot readily answer this question. A study of the literature on this subject indicates that few writers have

been in agreement as to definitions of psoriatic arthritis, hence in many instances unrelated articular diseases, including gout and osteoarthritis, have been designated psoriatic arthritis.

Arthritis associated with psoriasis has assumed a distinctive pattern. This pattern, standing apart from the expected pattern of uncomplicated rheumatoid arthritis, is of itself by no means a constant pattern. Rather, infinite variations are observed, and hardly a patient can be found in whom all the so-called, characteristic features are present. Nevertheless, one may epitomize the picture of the patient with psoriatic arthritis. Terminal interphalangeal articulations of fingers are likely to be involved, usually in association with psoriatic changes in adjacent nails. Interphalangeal articulations of toes are similarly involved and generally, adjacent toe-nails show the lesions of psoriasis. Terminal interphalangeal articulations of hands and interphalangeal articulations of toes are only exceptionally affected in uncomplicated rheumatoid arthritis, although this finding is far from unknown.

A frequently encountered difficulty results from the fact that Heberden's nodes, or osteoarthritis of terminal interphalangeal articulations of fingers, are not at all uncommon and may easily be mistaken for the inflammatory arthritis of terminal interphalangeal joints in psoriasis. There may be no solution to the question during the patient's life although psoriasis is a more likely cause of terminal interphalangeal arthritis in a young person, and especially if interphalangeal joints of toes are involved and if the picture is otherwise characteristic.

Some additional features that have been more baffling of definition have repeatedly been ascribed to the typical patient with psoriatic arthritis. Thus, the onset of psoriatic arthritis often has been designated as following some months or years after the onset of psoriasis. The general experience of the present series has been in agreement. However, many exceptions were encountered. Difficulty arises because many patients do not take note of the exact timing of the onset of these ailments.

A synchronicity of intensity for both psoriasis and arthritis has been considered essential to the diagnosis of psoriatic arthritis by some writers and it has been claimed also that effective treat-

ment of the psoriasis may result in effective control of psoriatic arthritis. These relationships have been as difficult for the writer to ascertain as the relationships of onset. For an occasional patient, synchronicity was an outstanding feature. In many, other features have been defined correctly but synchronicity of skin and articular components simply was not discernible in spite of a most detailed study.

Arthritis, more readily controllable than would be expected in uncomplicated rheumatoid arthritis, is a feature that attributes to psoriatic arthritis a more flexible behavior and a greater tendency towards reversibility. This is the most controversial of all "distinctive" features of psoriatic arthritis. Even expert rheumatologists are handicapped in arriving at this judgment by a complete lack of standards on which to base judgment. Remissions may be expected among patients with psoriasis and in some instances of the present series, remissions were remarkably complete and long-lived. For others, arthritis was relentlessly progressive and remissions were not reported.

A distinctive appearance of synovial tissues in psoriatic arthritis has been reported for isolated individuals. These reports have shown little agreement, varying from inflammation with intense hemorrhagic properties, to complete absence of inflammation. The present review reports finding of synovial tissues indistinguishable from those of uncomplicated rheumatoid arthritis.

The list of so-called distinctive features includes also a high incidence of intermittent hydroarthrosis among patients with rheumatoid arthritis. This feature was not noted in any of the histories as given by patients in the series surveyed for the present study.

It is because of this long list of uncertain specific features that the writer approached a study of the subject with a determination to analyze experiences as reflected by run-of-the-mill cases in which progressive inflammatory arthritis is associated with psoriasis. Answers to the perplexing problems of etiology and pathogenesis of psoriasis and arthritis are not recognizable from inspection of data reviewed herein. As the two conditions occur in notably large numbers of persons, however, this relationship appears likely to be an intimate one.

SUMMARY AND CONCLUSION

Among 50 patients showing both psoriasis and chronic inflammatory arthritis, several varieties or clinical types were encountered. These included instances in which articular symptoms presented distinctive clinical patterns and others in whom the joint disease resembled rheumatoid arthritis. Clinical features of these several varieties are reviewed; pathogenesis remained unknown for all. Pathologic material, skin, subcutaneous nodules, and muscle are described. The general principles of therapy for patients showing combined syndromes of arthritis and psoriasis are reviewed.

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Treatment of pencillin reactions

Forty-six patients with pencillin reactions were treated with penicillinase. Twenty-four were treated with intramuscular penicillinase alone, with uniformly good results. The other 22 patients had received previously or were given concomitant therapy with various antihistamines and/or ACTH and steroids. In 20 of these patients, the favorable clinical response seemed to be directly attributable to penicillinase. In the two cases with a poor response, penicillinase was given weeks to months after the reaction started. Also, in one case that could be classified as only a fair response, penicillinase was given two weeks

after the onset of the reaction. No systemic toxic reactions to single or multiple injections of penicillinase were noted. A few patients complained of pain at the site of injection, and one had a local reaction with induration which may or may not have been due to the enzyme. No local or systemic toxic effects were noted in the 20 patients and many guinea pigs reported in the initial study. Penicillinase should prove to be an extremely valuable adjuvant therapy in the treatment of pencillin reactions. *R. M. Becker, M.D. A New Concept in the Treatment of Penicillin Reactions: Use of Penicillinase. Ann. Int. Med. June 1958.*

Old and New Concepts In Treatment of Warts

GEORGE H. HASSARD, M.D., ALTON

A compilation of all methods ever proposed for curing warts would run an interesting gamut of variety. Starting with old wives' tales such as applying crumpled butterfly wings or rubbing the wart on a cut potato and burying the potato, the realm of treatment would pass through pseudoscientific conducts, the applications of chemical caustics, electrocautery, gamma rays, surgical excision, medical prescriptions, shots, and psychotherapy. This unusually broad scope of therapy results from the fact that upward of 30 per cent of all warts (numerically speaking, not classifiably so) will regress spontaneously in a period of a few months without any treatment¹. Be that as it may, any new simple, effective, and safe concept of dealing with warts should be reported.

CLASSIFICATION

It is most important to classify each verrucal lesion since one type is amenable to a particular treatment rather readily whereas another type fails to respond in like manner. Hence a brief review of classification and diagnosis is timely. However, categories vary from one textbook to another so that overlapping of the several adjectives has led to some confusion.

Classification of warts is based on gross and microscopic pathological findings. Frequently, however, the body site of the lesion spells out a distinction in cytological and gross characteristics which differentiates one class of wart from another. The classification hereby proffered is based on gleanings and siftings from standard textbooks.

1. *Verruca vulgaris* is the ordinary seed wart — a circumscribed discrete, single or multiple, rounded, papilliform, grayish or brownish lesion. Its sites of predilection are dorsal surfaces of fingers and hands, but the lesion may appear on

any epidermal region. It is symptomless and grossly noninflammatory unless complicated by infection. In winter or dry weather, painful cracking and fissures may occur.

2. *Verruca plana juvenilis* is a flat wart, seen primarily in children. It is small, smooth, dome-shaped, polygonal, dirty-gray to yellowish and is found primarily on the forehead or face and at times on flexor surfaces. Frequently it is grouped in numbers to the point of coalescence. It is seen often in conjunction with lichen planus or psoriasis or along scratch marks.

3. *Verruca acuminata* is better known as venereal wart, or condyloma acuminatum. It appears as an aggregate of small purplish-pink, tufted, or pedunculated lesions of varying lengths and flourishes near the mucocutaneous junctures. Sometimes an odiferous exudate covers these lesions.

4. *Verruca plantaris* varies in size from pin-head to the circumference of a half-dollar. It is flat and resembles a callus. (It is important to differentiate plantar wart from plantar callus as later explained). It is seen on the sole or palm.

There are three sub-types:

- a. Solitary pressure wart often seen under metatarso-phalangeal joint or os calcis.
- b. Multiple mother-daughter warts consisting of a primary lesion surrounded by vesicular satellites. Frequently these are misdiagnosed as tinea or dermatophytid.
- c. Mosaic warts of multiple patchy, painless areas that are difficult to cure.

5. *Verruca digitata* presents in a cluster of finger-like projections with a small round base. They are capped by thick horny scales and bleed readily after trauma. They are found in the scalp, beard, and other hairy areas.

6. *Verruca piliformis* also is called verrucae barbae. It appears as a threadlike, slender, pedunculated, flexible, smooth, flesh-colored lesion. It is readily spread by shaving but is frequently

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found on the neck, eyelids, nares, and axillary folds.

7. The subungual or periungual wart is *verruca vulgaris* but its location creates such difficult problems of treatment, alleviation of pain, permanent scarring, and nail damage that it deserves separate classification.

8. Some authors include a group of lesions termed *verruca senilis* or *pigmentosum*, commonly called seborrheic keratosis. Cytologically they resemble verrucae except the pigmentosal layer is involved and their etiology is not viral.

Hunter² proposes to classify focal hyperkeratotic foreign body reactions to asbestos, cement, and fiberglas as verrucae. Here again, the cytological picture is similar but by etiological definition, the terms *verruca* and *wart* will not apply.

ETIOLOGY

Warts are caused by epidermal tissue reaction to an autoinoculable, filtrable virus. Carney¹ states that *verruca plana juvenilis* is caused by a different virus from that causing other types of warts. Tobias³ postulates that various types of warts probably are due to the same virus but the diverse clinical picture is produced not only by anatomic location but differences in viral virulence or even mutations. Jordan and Burrows⁴ state that the epidermal cells in warts contain intranuclear inclusion bodies. Sutton⁵ found the incubation period to vary from four weeks to six months.

Wile and Kingery⁶ obtained a bacteria free filtrate of a wart, injected it intracutaneously in animals and observed the *in situ* generation of verrucae. Templeton⁷ inoculated along the same lines and noted delayed "takes" as long as a year later. McLaughlin and Edington⁸ reported an epidemic of warts in factory workers due to contact with contaminated glue. Valade⁹ reported epidemics of warts in school children in Michigan and numerous epidemics have been recorded by other authors. Kidd¹⁰ and Biberstein¹¹ reported the classic immunologic reaction of antigen-antibody type to a wart virus filtrate. Regardless of the variables in types of warty lesions, the scope of treatments, and responses to multiple therapies, virus is the etiological factor.

HISTOLOGY

The gross pathology of each type of *verruca* is presented under classification. The tumor can

hardly be termed a neoplasm since it often regresses spontaneously. It is characterized by local acanthosis with hyperkeratosis forming a papular structure usually elevated above the level of normal skin. The top shows clefts between the actively growing papillae, with black dots or strands so that an old wart may resemble a cauliflower. It seldom shows irritation or gross inflammation unless infected secondarily. If infection is present, it should be cleared before the wart itself is treated.

Warts may be differentiated from corns or calluses in that — after the overlying horny top is pared away — the warty papillomatous nature of the central part is evident. A callus so pared leaves a flat epidermis. The wart may bleed whereas a callus will not bleed at that depth.

A review of definitions and reacquaintance with the histological structure of normal skin will simplify the study.

Acanthosis (Greek: thorn, increase): Mitosis and hyperplasia of stratum mucosum or prickle cell layer of epidermis usually associated with a normal basal cell layer (stratum germinativum).

Hyperkeratosis (Greek: above, horny, increase): Thickening of keratinized stratum corneum and is generally associated with a prominent stratum granulosum.

Parakeratosis (Greek: beside, horny, increase): Overgrowth of horny layer due to disordered prickle cell layer and their maturation; it shows enucleated cells and scaling in corium.

Papilla (Latin: nipple): Any small nipple-shaped process.

Papula (Latin: pimple): Circumscribed elevated area varying in size from pinhead to about 5 mm.

Nodule (Latin: knot): Enlarged papula varying in size from 5 mm. to 2 cm.

Rete (Latin: mesh): Network of fibrous tissue, nerve fibers, or small vessels.

In Figure 1, the five layers of normal epidermis are illustrated. In Figure 2, a section of a *verruca vulgaris* is drawn. The virus provokes granular degeneration of the cells of stratum germinativum whereas the dermis is noninflammatory and only indirectly involved. The papillae are depressed, elongated, and thinned by overgrowth of the entire Malpighian layer by mitotic prickle cells causing folds and projections into which extend thin strands of stroma. In some cases, the papillae show considerable increase in

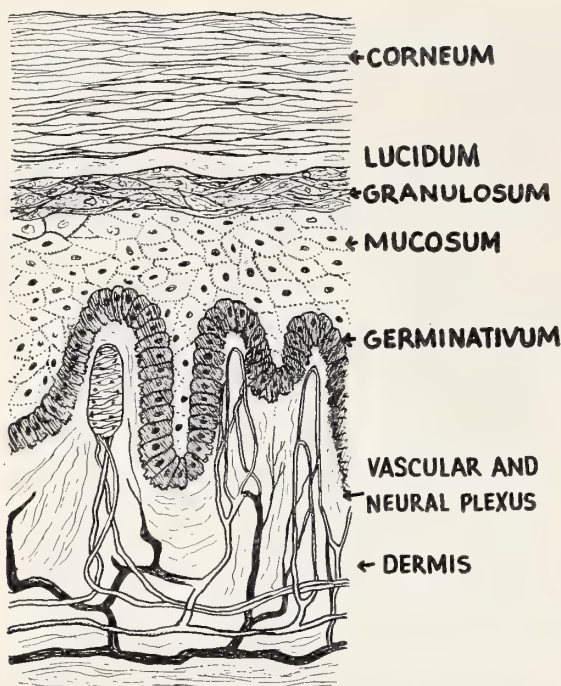


Figure 1. Diagrammatic Section of Normal Skin (after Cunningham's Human Anatomy).

Note: Cornium: Horny layer shows rows of flat, dry cells with no nuclei present.

Lucidum: Flat translucent enucleated cells containing only eleidin and occurring only on palms and soles.

Granular: Degenerative granules in cytoplasm.

Mucosum (Malpighian, squamous or prickly cells): Polygonal shape becomes flatter toward surface; cells separated by intercellular spaces, bridges, or prickles that actually are extensions of intracellular spongioplasm; lower 1/3 of cell layer frequently shows mitosis.

Germinativum (Basal cell): Often shows mitosis; contains pigment layer and forms melanin; also held together by intercellular bridges.

Dermis: Contains vascular and neural endings.

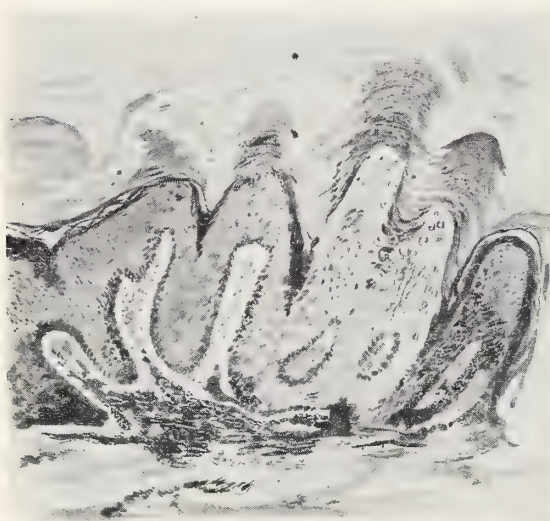


Figure: 2. Sketch of Verruca Vulgaris at Microscopic 100X Power (from Lever's Histopathology of Skin.)

Note: Corium: Some cells retain their nuclei (parakeratosis); para- and hyperkeratosis over the crest of papillae.

Lucidum: Practically obliterated.

Granular: Vacuolated cells with shrunken (pyknotic) nuclei.

Malpighian: Vacuolated and pyknotic nuclei in upper layers; acanthosis; increase in cells and mitosis of nuclei; rete pegs bent to point radially to the base; papilla thinned and elongated (grossly looks like seeds — papillomatosis).

Basalar: Some degeneration of a few cells of germinativum layer.

Dermis: Noninflammatory but capillaries slightly dilated.

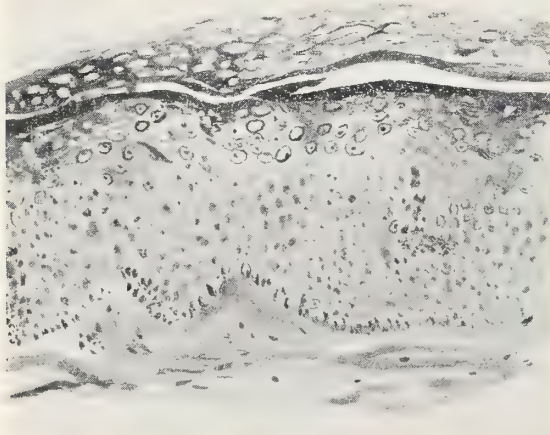


Figure 3. Verruca Plana Juvenilis (from Lever's Histopathology of Skin.)

Note: Corium: Some hyperkeratosis with basket-weave appearance; no parakeratosis or papillomata.

Lucidum: Practically obliterated.

Granular: More extensive vacuolization and pyknosis.

Malpighian: As compared to vulgaris there is more extensive vacuolization and pyknosis, less acanthosis, no papillomata, and only slight elongation of rete pegs.

Basalar: More melanin in cells of this layer than normal.

TABLE 1
Treatment Modalities of Choice

Type of Verruca	Treatment of Choice	Secondary and Remarks
Vulgaris	Electrodesiccation	Liquid nitrogen is equally efficacious
Plana	Vlemminckx's Solution	Bismuth or Fowler's Sol. internally; avoid destructive methods
Acuminata	Podophyllin	Consistently good results; no need for alternatives; must not get in eyes
Plantaris	Liquid nitrogen X-ray	Use pressure doughnut around lesion, may be curetted and destroyed by cautery
Digitata	Electrodesiccation	May pinpoint caustics
Filiformis	Snip lesion's neck and cauterize base	Needs no anesthesia; shave with electric razor
Sub or Periungual	Liquid nitrogen	Painful lesions; avoid scarring

blood vessels approaching that seen in papillary nevi. There may be a loose infiltration of various mononuclear cells into the papillae. There is hypertrophy of the outer keratinized layer. The cells of stratum granulosum are acidophilic and vacuolated and some nuclei may contain inclusion bodies. Plana juvenilis differs in that there is little hyperkeratosis, papillomatata and only moderate acanthosis as shown in Figure 3. A section of verruca plantaris is seen in Figure 4.

Carcinomatous transformation of these lesions

is rare although occasionally a verrucal form of senile keratosis or a squamous cell carcinoma with a prominent papillary hyperkeratotic surface is erroneously regarded as having arisen from a verruca, according to Anderson¹³.

TREATMENT

Though the modalities of treatment are legion, the most conventional deserve review. Table 1 lists the therapies of choice for each type of verruca.

Several factors must be considered in selecting a mode of treatment. Since warts generally occur on exposed areas, scarring should be avoided or minimized. The ideal procedure also should be simple to perform, not painful, avoid repeated applications, allow speedy healing, avoid permanent damage, deny recurrences, spare the patient's pocketbook, and should not interfere with the performance of the patient's usual duties.

Oral Medications: Equivocal results have been obtained by giving mercury protoiodide gr. 1/8, 1 or 2 daily after meals for two months. Bistrimate®* 1 tablet three times a day after meals for three days; then two tablets three times a day for two months. Fowler's Solution may be helpful in the plana juvenilis type.

Parenteral Injections: Intramuscular injections also have been equivocally effective. Weekly intragluteal injections of bismuth salicylate for upward of 15 weeks was effective in 33 per cent of Lurie's¹⁴ cases. Sulfarsphenamine 0.2 gm. for two injections was shown to be about equally capable.

Vaccine Therapy: When all other methods of treatment fail, a sterilized solution of macerated wart in normal saline strained through a Berkefeld N filter may be injected intracutaneously bi-weekly.

*Smith, Carroll Dunham Pharmaceutical Co.



Figure 4. Verruca Plantaris (from Lever's Histopathology of skin.)

Note: Corium: Much thicker; extensive parakeratosis and considerable hyperkeratosis.

Lucidum: Thicker and more vacuolated cells, some with nuclei.

Granular: More vacuolated cells with pyknotic nuclei.

Malpighian: Cells somewhat like granular layer cells in upper layers of mucosum; rete pegs point more radially as toward edges of lesion.

Basalar: Some degeneration of a few cells; less thickness of entire layer.

Dermis: Some infiltrative white cells and dilated capillaries.

Injectations of Lesions: The lesion is injected with a sclerosing agent. The needle should be inserted directly into the wart rather than in the corium or subcutaneous tissues. Some of the solutions so used are sodium morrhuate, quinine and urethane, equal parts 50 per cent dextrose and 30 per cent chloride, potassium oleate, and 1.5 per cent bismuth sodium tartate. The injections are accompanied by pain and some foreign body tissue reaction.

Surgery: Surgical excision is prone to bring recurrences, redressings, and inevitable scarring in exposed areas. If a lesion is extracted from over a joint, a splint should be used until healing is complete.

Electrodesiccation: A monoterminal spark-gap machine will destroy these lesions but the process is painful and requires procaine infiltration prior to use. Care should be taken to avoid extending too far beyond the lesion thereby producing unwarranted eschar. The wart should be fulgurated on the surface with medium voltage. Thence the needle is inserted at several points around the edge of the lesion and directed toward its base with low desiccation voltage intermittently applied. The top is lifted off and the base is curetted and fulgurated lightly. Sterile dressings are applied and the area must be kept free of moisture for 48 hours. Wounds from electrosurgery are notorious in their slow healing. Scars frequently result.

Cryotherapy: Dry ice or carbon dioxide snow may be formed into a pointed stick and applied for one to one and a half minutes, depending upon the depth of the wart. Liquid nitrogen is especially efficacious in freezing therapy for warts. Cryotherapy is painful: scarring and depigmentation may result.

Radiotherapy: Radium implants and X-ray therapy are relatively painless, leave little scar ring, and infection is unusual. The method stimulates little objection from children. I leave dosages and techniques of radiotherapy to the der-



Figure 5. Corrugated Box Top Fashioned Into a Shield.

Note: Hole in center; this surrounds the verruca.

matologists or roentgenologists. The treatment must be adequate in intensity or the lesion may become radioresistant.

Chemical Caustics: Normal skin surrounding the lesion should be blanketed by protective petrolatum before caustics are applied. These chemicals are dangerous and prone to create excessive scarring. Except in venereal warts, their use is not highly recommended. Vlemineckx's Solution and salicylic acid paste are much more innocuous. A brief list of agents used in chemical cautery should include:

- Podophyllin Resin 7.5 gm.
- Compd. Tr. Benzoin, q.s. ad 30.0 cc.
- Shake and apply to each lesion with applicator; keep away from eyes.
- Sulfurated Lime Sol. 120.00 cc.
- (Vlemineckx's)
- Dilute 1:10 and apply locally twice a day.
- Salicylic Acid 18 gm.
- White Petrolatum, q.s. ad 30 gm.
- Apply locally to lesion.

Other agents include bi- and tri-chloroacetic acid, formalin, acid nitrate of mercury, and silver nitrate.

Psychotherapy: I confess no experience with

TABLE 2
Results of Treatment With Vioform 3%

Type of Verruca	Days for Results	No. of Cases	Results	Recurrences
Vulgaris	14	6	Good 33%	12%
Plana	14	2	Good 50%	
Acuminata	14	1	Good 0%	
Plantaris	30	10	Good 0%	
Digitata	14	1	Good 0%	
Filiformis	14	1	Good 0%	
Periungual	14	4	Good 25%	

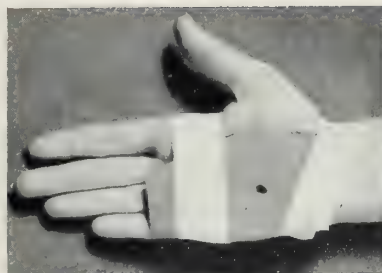


Figure 6A. Shield Applied to Palmar Wart.

Note: Adhesive tape holds shield firmly in place.



Figure 6B. Vioform Cream 3%, Applied in and Around Hole as Transmitting Medium for Ultrasound.



Figure 6C. Treatment With Ultrasonic Energy.

this modality. The rationale of psychotherapy is that nerve impulses stimulated by emotions may cause chemicobiologic changes in the affected tissues which damage or neutralize the virus.

SUGGESTED TREATMENT

Keeping in mind the criteria for the ideal treatment of verruca, a clinical investigation of a *fin-de-siecle* approach was initiated. Oliva¹⁵ reported successful obliteration of warts on various areas of children's skin by simple direct application of idochlorhydroxyquin (Vioform®* cream, 3 per cent). The lesions usually disappeared in six to 10 days, but the results with adults were disappointing. The results of our study using the cream alone are shown in Table 2.

To facilitate deeper penetration of the ointment into the lesion, ultrasound was utilized in the following manner: A corrugated pasteboard box lid was fashioned to fit the contour of the general area surrounding the verrucae as illustrated in Figure 5. Perforations were carved over each wart with the circumference slightly larger than

the lesion. The cream was applied to the lesion, filling the perforation, and spreading over the corrugated shield beyond the diameter of the transducer head. Thus the cream was used as the coupling or conductive medium for applying ultrasonic energy. Sound waves, in turn, seemingly acted in an iontophoretic manner, driving ions into the hyperkerototic lesion. Iodine is said by Edwards¹⁶ and others to be virucidal.

A low dose of ultrasonic energy — 0.2 to 0.4 watts per square centimeter of transducer head surface for children and somewhat higher for adults — was given for three to five minutes and repeated daily if necessary. Dosages of ultrasound at this extremely low intensity and short duration, along with protection by the aircore of the corrugated shield, make this safe to use even on children with unfilled epiphyseal lines in underlying bone. Lesions were treated on the cheeks and neck but not on the forehead or over the brain. Figures 6A, 6B, and 6C illustrate the application technique on a palmar wart.

The results of treating warts with ultrasonic alone are shown in Table 3. Our findings are a bit better than those of Bauer¹⁷ and others who

*Ciba Pharmaceutical Co.

TABLE 3
Results of Treatment With Ultrasonic Only

Type of Verruca	Aver. No. Treatments	Days for Results	No. of Cases	Results	Recurrences
Vulgaris	4	14	10	Good 60%	None
Plana	6	14	2	Good 50%	None
Acuminata	(used podophyllin only)				
Plantaris	7	30	117	—results not complete subsequent report forthcoming	
Digitata	6	14	1	Good 100%	None
Filiformis	(used clipping method only)				
Sub-Periungual	5	14	2	Good 50%	None

TABLE 4
Vioform and Ultrasonic Combined

Type of Verruca	Aver. No. Treatments	Days for Results	No. of Cases	Results	Recurrences 6 mon.
Vulgaris	3	14	20	Good 92%	None
Plana	11*	14	5	Good 100%	None
Acuminata	(used podophyllin only)				
Plantaris	7	30	10	(subsequent report)	
Digitata	8	14	2	Good 100%	None
Filiformis	(used clipping method only)				
Sub-Periungual	5**	14	4	Good 100%	None

*One case on 7 year old required low dosage and 20 treatments (see case histories).

**Pain necessitated low dosages on three of four cases here and one of the two in which ultrasonic was used alone (Table 3).

had good results on 40% of vulgaris cases.

The clinical findings from using a combination of Vioform cream, 3% and ultrasonic are shown in Table 4.

In some instances, the entire wart was peeled out after the first treatment. Usually the lesion enucleated easily after three to six days. There was immediate cessation of pain in cases presenting inflammation. With ultrasonic alone, there was powdering of the lesion but in combination with the cream, scaling and peeling were the modes of desquamation. After the first treatment, the warts exhibited deeper furrows around the papillae and a light tan discoloration with increased redness around the base. It is not within the scope of this paper to review the physiologic effects and histologic consequences of ultrasound.

COMMENTS

Our results appear encouraging and further trials of this procedure are warranted. In applying the criteria for the ideal treatment to this method, we found no pain was involved, no scarring resulted, no healing of wounds was necessitated, no permanent damage obviated, and no recurrence after six months except as noted in tables. No reactions of contact irritation, allergy, or infection was encountered. The procedure is simple, inexpensive, and consumes little time. With the increase of ultrasonic machines in general practitioner's offices, this method may be a valuable adjunct to the armamentarium of treatment.

CASE HISTORIES

W. F., a 26 year old male had a verruca vulgaris removed surgically from the pulp of his right index fin-

ger four weeks previously. A solid mass of warts had developed along the entire line of incision. This was incapacitating so far as his work as a warehouseman was concerned. After the third treatment in the manner described above, almost no hyperkeratosis was visible. Later the scar from the surgical wound was almost undetectable, bisecting Galton's lines of the fingerprint.

M. M., a 7 year old girl had a five inch area of verruca plana juvenilis coalesced over the left knee. For safety's sake, the intensity of duration were lowered to 0.2 watts at one minute for 20 treatments irregularly spaced over a period of 35 days. The surface is now clear. Interestingly, five similar verrucae over the left elbow also disappeared.

H. N., 51 year old right-handed painter had three digitate type warts in right axilla. When painting on lower levels, the lesions became traumatically irritated. Vioform cream was applied for 14 days with no apparent cure. When ultrasonic was added, the lesion shrunk and dropped out on the sixth treatment day.

R. M., 54 year old man had a periungual wart for 30 years. He had picked at it with pocketknives, scissors, and needles for many years. Prior to treatment with ultrasonic, it became infected and he had to perform altered duty as a glass-bottle mold repairman. After the infection subsided, even though some inflammation and pain remained, ultrasonic with Vioform treatment was begun. After the first treatment, pain was relieved. Low dosage was necessary to avoid pain in treatment but the lesion was easily and painlessly enucleated after the fifth treatment.

L. S., 33 year old bowling alley operator noted his bowling average falling because of a vulgaris wart on his right middle finger; this made it necessary for him to alter his delivery. After four treatments, both pain and lesion were gone. On his second subsequent outing, he bowled his first perfect 300-point game.

I. H., 43 year old secretary had a palmar wart on her right hand that was irritated by typing. Ultrasonic was applied without ointment but pain was provoked by even the most minute dosage and the case was abandoned after two treatment attempts.

SUMMARY

The conventional modalities of treatment of verrucae are discussed. The etiology and histological background for classifying the type of wart are presented. The necessity of accurate diagnosis is stressed; each verrucal type responds individually to different therapeutic procedures.

A clinical evaluation of a new treatment method is reported. It approaches many of the criteria for the ideal treatment. The method utilizes Vioform cream, 3% and ultrasonic energy. The results of this study indicate that further evaluation is warranted.

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ACKNOWLEDGEMENTS: This study would not have been possible without the untiring efforts of Charles L. Redd, Physical Therapist. The excellent drawings are by artist Eugene Fleming and photographs by Johnny Wilson.

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Cerebral angiography

"Stroke" is a nonspecific clinical term with the connotation of a more or less sudden cerebrovascular disturbance, but it is never an acceptable conclusion or diagnosis. Cerebral angiography permits a specific etiologic diagnosis to be made with proper differentiation between thrombosis, hemorrhage, and embolism as a prerequisite to rational medical or surgical therapy. Furthermore, it is noted that lesions that are primarily nonvascular may give rise to sudas, and others with chronic conditions. They den vascular symptoms simulating the general

picture of "stroke." Angiography permits proper identification of these lesions, many of which are tumors or subdural hematomas, that may be amenable to definitive surgical treatment. Since "stroke" is listed as the third most common cause of death in the United States, one cannot escape the question: How many of this number are dying with potentially curable lesions? The relative simplicity and safety of cerebral angiography, with the writer's experience in more than 200 angiographies, is reviewed. Illustrative case reports are given. *A. C. Johnson, M.D. "Stroke"—with Special Reference to Cerebral Angiography. Rocky Mountain M.J. May 1958.*

Thrombosis, Blood Coagulation and the Diet

ANCEL KEYS, M.D., MINNEAPOLIS, MINN.

Most researchers on coronary heart disease agree that atherosclerosis is the major underlying pathology but it is clear that the role of thrombosis also needs consideration. In the majority of fatal heart attacks, thrombosis is importantly involved and in perhaps one fourth of coronary deaths under 40 years of age, thrombosis, is more conspicuous than the degree of atherosclerosis of the coronaries¹.

In view of the evidence that the development of both atherosclerosis and coronary heart disease tends to be related to the character of the diet², it is pertinent to ask whether the diet may influence thrombogenesis. Suggestive evidence, at least, is available from epidemiological research and from studies on blood flow and coagulation.

It is well known that during and after World War II coronary heart disease mortality rates underwent large changes in many countries and that these changes tended to follow, with a lag of a year or two, major changes in the diet, particularly in the fat content. In some countries, these changes in coronary heart disease were paralleled by even more striking changes in the frequency of thrombo-embolic complications after surgery³. That populations differ in the incidence of post-traumatic thrombosis and embolism as well as in coronary heart disease has been reported for many years⁴, both conditions apparently being relatively uncommon in populations habitually subsisting on low fat diets.

It is not known how general or exact may be this apparent association between the diet and the tendency toward thrombogenesis and, in any case, conclusions about cause and effect require evidence as to the mechanisms involved. An obvious line of inquiry is in research on blood coagulability. The addition of small amounts of food

fats to blood *in vitro* greatly accelerates coagulation and the cephalin fraction of the fats seems to be responsible. But there is much controversy about the coagulability of blood drawn during the lipemic phase after a fatty meal. Many investigators have reported accelerated coagulation in that phase but others deny the reality of the phenomenon or doubt its relevance to the situation *in vivo*.

Much of the current disagreement undoubtedly reflects the unsatisfactory state of present methods for the quantitative study of blood coagulation. Almost all coagulation studies involve highly artificial condition—abnormal contact surfaces and motion of the blood, absence of the metabolic exchanges to which blood is exposed in the lungs and in the capillaries—as well as being only semi-quantitative. These methods may suffice to reveal clotting defects but are far from ideal for the estimation of hypercoagulability.

With all these limitations, the published data as well as our own experimental results allow some conclusions. They indicate that when blood is drawn after a fatty meal:

- 1) The clotting time of whole blood in plain glass is not consistently changed.
- 2) The clotting for whole blood in siliconized tubes frequently is shortened. This is not always statistically significant in any one experiment with a small group of subjects but the trend is evident in almost all reports, including those by researchers who deny any effect.
- 3) The clotting time of re-calcified plasma in the presence of Russell viper venom (Stypven time) is markedly shortened.
- 4) In the hands of some researchers at least, platlet count, Christmas factor, and plasma heparinoids may be decreased and antihe-mophilic globulin activity may be increased, while prothrombin time may be slightly shortened.

In my own laboratory, Doctors Esko Orma

From the Laboratory of Physiological Hygiene, University of Minnesota.

While the Nutrition Committee of the Chicago Heart Association is sponsoring this article, the opinions expressed are those of the author and do not necessarily represent the official view of that committee.

and Douglas Rhodes have consistently found a marked acceleration of whole blood Stypven time as well as of plasma Stypven time after a fatty meal, and this does not seem to be dependent on the character of the fatty acids in the meal.

Clearly, after a fatty meal the blood is potentially hypercoagulable in some respects. If the blood in the body were even exposed to the action of an incomplete thromboplastin similar to Stypven, then the stage might well be set for thrombosis. But at present this is only a theoretical speculation. In the same way it is as yet questionable to what extent the changes observed microscopically in the capillary blood flow after a fatty meal are actually relevant to the thrombosis problem.

Besides a possible direct influence on thrombogenesis because of the production of hypercoagulability, the question of other effects of the diet on the tendency toward thrombosis must be considered. In the first place, the presence of atherosclerosis undoubtedly promotes thrombogenesis and may actually be a necessary condition for its development in most cases. So far as diet affects atherogenesis, it also influences thrombogenesis. This suggests that a diet high in saturated fatty acids would favor eventual thrombosis via the sequence of hypercholesterolemia to atherosclerosis.

Independent of such action, conceivably the diet may influence thrombosis or its consequences

through an effect on the fibrinolytic power of the blood. One theory has it that fibrin formation and the beginnings of thrombosis are constantly being opposed by fibrinolysis. In any case, fibrinolysis may dissolve a clot once it is formed and anything that affects the fibrinolytic power of the blood will, therefore, tend to influence the persistence of the clot. The claim that fatty meals inhibit fibrinolysis is intriguing but in this laboratory we have been unable to confirm this claim. Here again the situation is confused because of the unsatisfactory state of current methods.

To sum up, many varieties of evidence and the balance of inference certainly point towards an unfavorable effect of high fat diets and fatty meals on susceptibility to thrombosis. However, definitive proof is lacking and the need for improved methods and much more research is obvious.

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Misuse of tranquilizers

Psychotherapy is not the ability to write prescriptions for tranquilizers, any more than the ability to write prescriptions for antibiotics is characteristic of the internist's ability. If we surrender to this easy type of therapy, we might

as well let the manufacturers of tranquilizers contract with our cities to put the drugs into the reservoirs of drinking water. Then everybody would relax. *R. Burbridge, M.D. Toxic Effects vania M. J. Aug.* 1958.
and Misuse of Tranquilizing Drugs. Pennsylv-

Case Finding in Diabetes — A Practical Screening Test

ALBIN M. BRIXEY, JR., M.D., JOLIET

THE incidence of diabetes in the general population is estimated as about 2 per cent, with higher frequency in the older age levels (up to one out of every six women past the age of 65 years).¹ While a high index of suspicion is of value, still, as Weed puts it, "for the early detection of diabetes, each physician, practitioner, and specialist alike, must perform a screening test, even though it be only a urine test for glucose one hour after a high carbohydrate meal, on every patient he sees."²

Many screening tests have been devised and used; the one most commonly employed has been a simple random or fasting urinalysis. In one series³ of 19,828 patients tested, 866 (approximately 4.4 percent), had positive urine tests for sugar. Of these, 220 were examined further, from which a total of 10 new cases of diabetes was discovered. In another screening of 19,358 college students, there was an incidence of 70 cases of true diabetes in a total of 155 positive tests.⁴

As a refinement of the single urine test for sugar to increase its efficiency in case finding, one group⁵ has suggested that patients be instructed to collect a urine specimen two hours after eating a high carbohydrate meal. By this method, nine (1.3 percent) new cases of diabetes were discovered in 81 positive tests found in 694 after-meal urine examinations.

Wilkerson⁶ has pointed out that blood sugar tests are more specific and more sensitive for detection of diabetes than are urine tests alone.

Duncan⁷ furthermore emphasized the value of postprandial blood sugar tests because fasting blood sugar values often are deceptively normal in mild diabetes. He suggests that the patient with a blood sugar of over 170 mg. per 100 cc. two hours after a liberal meal usually has diabetes. Murphy⁸ too believes that hidden diabetics can be found by the use of urinalysis and blood

sugar test one to two hours after a carbohydrate rich meal.

A modification of this plan was carried out by Englehardt and Greene,⁹ who reported examining a group of 500 subjects who had had previous negative urine tests for sugar. Each was prepared for three days with a diet containing 300 grams of carbohydrate, then given a test meal containing 118 grams of potential glucose followed by 50 grams of glucose in solution. Venous blood and urine were examined one hour later. By this means 10 (2 percent) diabetics and eight (1.4 percent) potential diabetics were discovered.

Probably the largest series thus far studied has been the mass screening by the Georgia State Public Health Department with the utilization of random blood sugar tests in more than 500,000 Georgians. In an analysis of about half of this group, in which follow-up glucose tolerance tests were administered to all suspects, Petrie, et al.¹⁰ revealed that 1.87 percent were referred to private physicians because of abnormal or borderline carbohydrate metabolism. There was no available correlation as to the frequency of true diabetes in this study because all suitable cases were referred to private physicians for diagnosis and care; no diagnoses were made by the health department. This study also points up the lack of correlation between blood sugar elevation and glycosuria: 20 percent of persons having abnormal glucose tolerance blood tests had no glycosuria; 42 percent of those showing borderline blood tolerance tests had no glycosuria.

Although Ratzan¹¹ has not used the method for a screening test, but rather as a modified sugar tolerance test to determine the presence of diabetes in suspected persons, his breakfast test could be adapted for that purpose easily. It consists of three simple procedures:

1. Fasting blood sugar and urinalysis.
2. Standard meal; two slices of bread with butter to taste, one cup of coffee with a

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TABLE 1

Breakdown of Cases Tested, by Method of Screening for Diabetes			
	Urine Test Alone	Urine Test and Fasting Blood Sugar	Urine, Fasting Blood Sugar and 2 hour Postprandial Blood Sugar
Positive	—	12*	190*
Negative	566	199	1,361
Total	566	211	1,551
*See Text			

tablespoon of cream, and two eggs cooked to taste. This meal contains approximately 32 grams of available glucose.

3. 1¼ to 1½ hours later repeat blood sugar and urine tests.

This test was interpreted in the same fashion as the glucose tolerance test.

The present study consists of two groups of patients: (1) all new patients seen in the offices of the author and his associates and, (2) all patients (except known and suspected diabetics) admitted on their services at Silver Cross Hospital and St. Joseph's Hospital, Joliet, during 1954, 1955, and 1956. In this three year period a total of 2,328 cases fell into the above categories. Of this total, 566 (Table 1) were tested by one or more urine examinations alone. No new cases of diabetes were discovered in this manner, as all these tests proved negative.

Another group of 211 patients (Table 1) had both urine examinations and one or more fasting blood sugar tests. Of this series, 12 had abnormal findings. Two of the 12 with abnormal tests were proved to have diabetes. Of the other 10, four patients died in less than 24 hours after hospital admission from cerebrovascular accident or coronary vascular disease; five had had initial blood sugar work after having received intravenous glucose and were subsequently shown by further tests to be normal. One was apparently found abnormal on the basis of a laboratory error because all subsequent tests, including a glucose tolerance test, were normal.

The final group consisted of 1,551 patients (Table 1) who were tested in the following manner:

1. Eat and drink as desired up to midnight preceding the test.
2. Fasting blood sugar and urinalysis.
3. Standard test breakfast.
4. Repeat blood sugar 2 hours following the test meal.

The test breakfast containing approximately 100 grams of carbohydrate, 17.5 grams of protein, and 21.4 grams of fat was as follows:

- 1 medium size banana
- 1 shredded wheat biscuit
- 1 cup of milk
- 2 slices of bread
- 2 pats of butter
- Coffee (black) as desired
- No added sugar, but saccharin or sucaryl as desired.

This meal has become standard in both hospital diet kitchens and was provided the patients automatically when the test was requested. It also was well known to the hotel coffee shop across the street from the author's offices, so that there too it was obtained without any difficulty.

Each subject was then classified as having (1) a normal (negative) test or, (2) an abnormal (positive) test, according to the criteria in Table 2.

In this manner 190 (12.24 percent) abnormal tests were found. As shown in Table 3, a total of 160 (10.31 percent) of these were found to have

TABLE 2

Primary Screening Level for 2-hour Postprandial Blood Sugar	
When the 2-hour Postprandial Blood Sugar is—	Disposition
Below 120 mgm%	Normal
Between 120 mgm% and 160 mgm%	Normal (Glucose Tolerance Test above 150 mgm%)
Between 160 mgm% and 200 mgm%	Abnormal (Glucose Tolerance Test)
Above 200 mgm%	Abnormal—Indicative of Diabetes (Test repeated)

TABLE 3

Breakdown of Abnormal 2-hour Postprandial Blood Sugar Tests

1. <i>Definite Diabetes</i>	160
a. Normal fasting blood sugar and negative urine test	116
b. High fasting blood sugar, negative urine test	31
c. High fasting blood sugar, positive urine test	13
2. <i>Suspected Diabetes</i>	
a. Normal fasting blood sugar, negative urine test—lost to follow-up	11
3. <i>False positives</i>	
a. Normal fasting blood sugar, negative urine tests and normal glucose tolerance test ..	19

true diabetes. Among this latter group, 31 patients, in addition to the postprandial blood sugar elevation common to the entire series, had a high fasting blood sugar (but with a negative urine test for glucose.) Another 13 patients had the additional finding of glycosuria. These 44 patients, all of whom were subsequently proved to have diabetes, could have been discovered by one of the other screening tests. Eleven patients with abnormal postprandial blood sugar elevations were lost to followup and are listed as suspected diabetics. A total of 19 (10 percent of all positives and 1.22 percent of the group tested in this manner), were shown to be false positives, as demonstrated by repeat tests and glucose tolerance tests.

The remaining 116 cases (7.48 percent) of the 190 are new cases of diabetes which would not otherwise have been discovered at that time. In these 116 positive cases, one or more glucose tolerance tests were carried out on a total of 99 patients (the postprandial blood sugar was above 200 mg. per 100 cc. blood in the other 17). Of this total, 75 patients showed no glycosuria, despite high blood sugar values, during the entire test. This total is much greater than that reported by Petrie, et al.¹⁰ but again emphasizes the variability in renal threshold for glucose,

particularly in the older age group here studied.

DISCUSSION

While the incidence of newly discovered diabetes is greater in this series than in many previously studied, it should be pointed out that their ages are, in the main, in the upper bracket, and it will be noted (Table 4) that almost 77 percent of all patients tested are above 40 years of age and almost 60 percent above age 50. Only 3 percent are above age 79.

In the reported series there are 44.6 percent males and 55.4 percent females. Almost all are white, there being but 1.1 percent Negroes in the entire group, but two of the positive tests were found in Negro women. As shown previously,¹⁰ the percentage of incidence of abnormal utilization of carbohydrate increases in almost a straight line from the age of 20 through 79 years (Figure 1).

CONCLUSIONS

1. This report covers a total of 2,328 individuals tested for diabetes in private practice.
2. Of 566 patients checked by one or more urine tests for sugar, all were negative and normal.
3. Of 211 patients who had both urine and

TABLE 4

Findings of 2-Hour Postprandial Blood Sugar, According to Age & Sex

Age	Total Tested	Male		Female	
		Positive	Negative	Positive	Negative
0-9 years	.70%	—	.56%	—	.14%
10-19	2.10	—	1.12	—	.98
20-29	7.91	.28	2.12	—	5.52
30-39	12.32	—	4.53	.84	6.86
40-49	17.84	.98	6.36	1.25	9.20
50-59	19.83	2.12	8.78	.98	7.93
60-69	22.94	2.69	8.07	2.83	9.34
70-79	13.16	1.98	3.68	2.12	5.38
80-89	2.97	.14	.98	—	1.69
90-99	.27	—	.14	—	.14

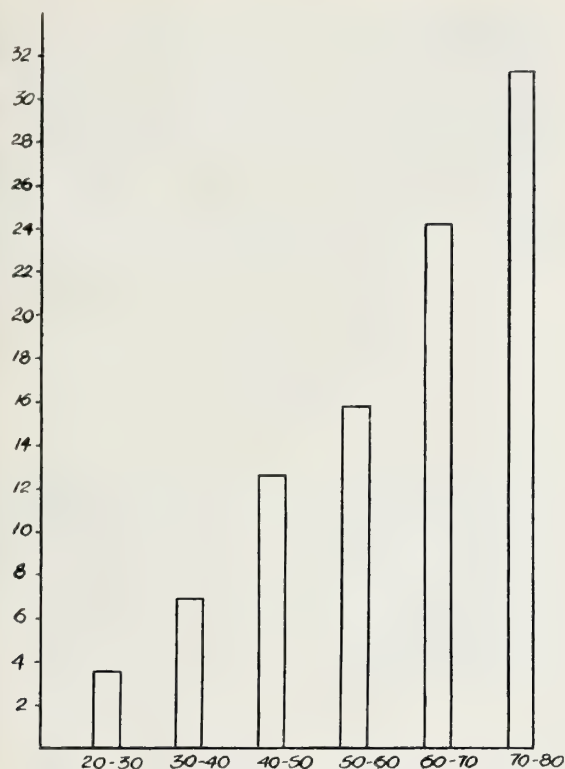


Figure 1: Bar graph showing percent abnormal 2-hour postprandial blood sugar tests, according to age group.

fasting blood sugar determinations, 12 showed abnormality and two were true diabetics.

4. A group of 1,551 patients were examined by:

a. Use of fasting blood sugar and urinalysis.

b. Standard test meal containing approximately 100 grams carbohydrate.

c. Repeat blood sugar determination in two hours.

5. In this manner, 190 abnormals were found, 160 of whom were proved to have diabetes.

6. Discovered by this procedure were 116 cases (7.48 percent) of diabetes, not demonstrable by urine tests nor by fasting blood sugar alone or in combination.

7. There were 19 false positives (10 percent of all positives) in the group.

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Ocular Aspects of Endocrine Exophthalmos

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THE ocular signs of Graves' disease are so familiar to every physician, the ophthalmologist seldom is consulted concerning their management. Moreover, the clinician is well aware of the ocular problems that may be caused by sudden depression of thyroid activity and directs his therapy in a manner calculated to produce minimal disturbance of the orbit. The widespread use of diagnostic methods to determine thyroid function and the kinetics of iodine metabolism have virtually eliminated blindness caused by malignant exophthalmos.

However, the effective medical and surgical treatment of hyperthyroidism has not eliminated ocular complications as a problem but in many ways has made them the most important aspect of the disease. Usually, the thyroid abnormality may be controlled but the eye signs—which seem to be nearly divorced from the primary disease—give rise to cosmetic and visual problems particularly aggravated by their frequent but by no means invariable occurrence in women.

Patients requiring ophthalmic care fall into three rather distinct groups:

- a) Those with acute thyrotoxicosis with eye signs that dominate the clinical picture.
- b) Those with ocular signs of thyroid disease without history or evidence of past or present thyroid abnormality.
- c) Those with aggravation of the ocular signs following effective therapy of thyroid abnormality.

In each of these groups is a subdivision of patients who present signs predominantly in one orbit so that a unilateral ocular protrusion directs suspicion toward neoplasm or inflammation, rather than systemic disease.

It should be noted that in this country at least

the distinction between thyrotropic and thyrotoxic types of exophthalmos is believed by many to be unjustified. Clinically, however, it is well to distinguish between signs which appear to arise largely on the basis of sympathetic hyperactivity (lid lag, lid retraction, and stare) and those arising from edema of the orbit (ocular muscle palsy, conjunctival injection, glaucoma, papilledema, and swelling of the lids). Exophthalmos may develop with either group of signs predominating and on occasion, both groups are present. Large degrees of exophthalmos also may appear in either condition but when edema is present the exophthalmos has developed rapidly, there has been no compensatory stretching of the lids, and exophthalmos is incompressible. Gradual development of exophthalmos permits compensating stretch of the lids and extreme degrees may develop without exposure of the cornea.

Acute Thyrotoxicosis with Predominantly Ocular Signs.—A patient with Graves' disease, in whom the condition is ushered in with marked eye signs, has in no way a different systemic disease than the patient with thyrotoxicosis who has either minimal or no ocular abnormality. Ocular signs may be dominated by congestive features; edema of the lids and conjunctival congestion are prominent. These patients may not present an obvious exophthalmos nor may lid retraction be particularly evident.

Diagnosis of the primary disease usually is simple, provided the possibility of a thyroid abnormality is investigated. Conversely, these patients occasionally do not receive the prompt medical attention they deserve because of prolonged and ineffective treatment for conjunctivitis or edema of the lids.

Management of these patients must be directed toward gradual amelioration of the hyperthyroid state with unusual care taken not to produce hypothyroidism. Patients whose disease is

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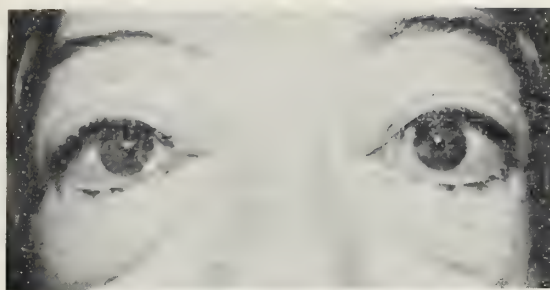


Figure 1. Severe orbital edema with congestion occurring with acute thyrotoxicosis. The patient was treated for allergic conjunctivitis for five months before the thyroid abnormality was diagnosed.



Figure 3. Marked compensated exophthalmos without orbital edema.



Figure 5. Ocular muscle palsy following amelioration of thyroid disease.

ushered in with orbital edema are particularly prone to develop the permanent crippling effects of endocrine exophthalmos: optic nerve involvement with changes in the visual fields, glaucoma, muscle palsies, and orbital stasis with an incompressible exophthalmos.

Ocular Signs of Hyperthyroidism without Systemic Signs of Disease.—The occurrence of characteristic eye signs of hyperthyroidism in patients who demonstrate no signs of hyperthyroidism presents a most difficult problem. Ocular signs may be those of sympathetic hyperactivity or orbital edema. If ocular protrusion is unilateral the diagnostic problem is even more difficult. Since diagnosis must be made largely by exclusion of other conditions causing exophthalmos, the physician can never be certain that the diagnosis is the proper one nor can he release the pa-



Figure 2. Ocular signs of Graves' disease occurring in a patient without present or prior evidence of thyroid disease.



Figure 4. The same patient as in Figure 3 following lateral blepharoplasty.



Figure 6. The same patient after decompression of the left orbit by the lateral route.

tient until the disease has completed its course.

The differential diagnosis includes all of the causes of proptosis and exophthalmos and may require a most searching history and examination. Particular attention should be directed to the possibility of the patient's having received one of the thiouracil salts without having special attention directed toward a possible thyroid abnormality. Roentgenographic examination of the orbit and optic foramen must be routine in such patients. Ocular conditions that must be excluded include carotid-cavernous fistulas, neoplasms and inflammations of the orbit, and myasthenia gravis. In some patients, carotid angiography and special orbital studies may be required to exclude local or neurologic disease.

Ocular Changes Following Amelioration of Thyroid Disease.—Careful studies by Dobyns

and by Rundle indicate that usually there is a slight increase in the degree of exophthalmos following medical or surgical correction of hyperthyroidism. However the cosmetic appearance is improved and the exophthalmos apparently decreases because of the return of the abnormally retracted upper lid to its proper position.

In a small group of patients following medical or surgical correction of hyperthyroidism there is progression of the exophthalmos with the production of an edematous orbit. This is a frequent complication of rapid ablation of thyroid function but also may follow the most gradual reduction. The complication is particularly likely in middle-aged individuals, particularly females near the menopause.

A number of different modes of treatment have been developed for progressive exophthalmos and they have been effective in preventing the exposure keratitis with the blindness that occurred several decades ago. Systemic thyroid extract, transfrontal orbital decompression, early tarsorrhaphy, and hypophyseal radiation (which also exposes the orbit to the radiation) have been effective and each has a definite indication.

Persistent Ocular Complications.—There are a large number of eye disorders which occur secondarily to exophthalmos. The majority are associated with an edematous orbit and solid type of exophthalmos but this relationship is by no means invariable.

Increased intraocular pressure may occur either from orbital congestion, interfering with the intraocular vasculature, or represent merely a primary glaucoma unrelated to a thyroid abnormality. There may be wide variations in the Schiotz tension measurements, depending on whether the patient directs his eyes upward or downward. Similarly, tonography in such patients may show marked variations and the liability of the intraocular vascular volume may be reflected as an apparent change in scleral rigidity.

Ocular muscle weakness is particularly likely to involve the vertical muscles and may cause an extremely distressing and disabling diplopia. Electromyographic studies indicate the abnormality to be located in the weak muscle itself rather than contracture of its antagonist. Muscle surgery in this condition frequently is not satisfactory and certainly should be deferred for at least one year to await spontaneous improvement. Correction of diplopia with prisms seldom is

satisfactory because of the large correction required and the inability to eliminate diplopia in all of the fields of gaze.

Disturbances of the optic nerve occur with moderate frequency and vary from papilledema to retrobulbar neuritis followed by optic atrophy. These complications develop independent of the severity of the exophthalmos and their course is not modified by surgical and medical therapy. It may be that these complications occur more frequently than is appreciated but are not diagnosed because of failure to study the disks or to evaluate transient variations in vision.

Women particularly find persistent exophthalmos a cosmetic defect. The appearance may arise from continued retraction of the upper lid or from extreme degrees of proptosis which may be either the compensated or noncompensated type. It should be noted that surgical decompression of the orbit is unlikely to afford any cosmetic improvement if the condition has persisted for more than six months. Recession of the levator may be effective in correcting refraction of the upper lid. For correction of the cosmetic defect in which the upper lid is not retracted, a permanent lateral blepharoplasty is most effective.

Orbital Decompression.—In recent years there has been increasing enthusiasm for decompression of the orbit by means of resection of the lateral wall. The indications for the procedure have broadened to include persistent exophthalmos and ocular muscle palsy in addition to rapidly progressive exophthalmos. The procedure may be carried out during the acute edematous stage or later, but the longer the disease has persisted the less marked correction of either exophthalmos or muscle weakness will be obtained. There ought to be adequate trial of medical therapy but the development of muscle weakness should be a signal for surgery. The lateral approach is associated with so few difficulties, particularly compared with the transcranial operation, that it should be widely utilized in the management of the disease.

Lateral decompression may be carried out with decompression into the temporal fossa by means of an incision in the hairline in front of the tragus. A bony opening some 30 x 30 mm. may be obtained. A simple approach is the Berke operation in which the Stryker saw is used to incise the lateral bony wall. Undoubtedly as large an orbital opening is not obtained with this

operation as with the transcranial approach, but it is adequate to reduce the exophthalmos from 4 to 6 mm. and to relieve muscle palsy.

Lateral Blepharoplasty.—When extreme protrusion of keratitis threatens the eyes, a temporary type of tarsorrhaphy may be indicated. Usually, opposing denuded edges of the lids are sutured together and remain adherent. This type of procedure is not satisfactory for a permanent lateral blepharoplasty because, with passing time, the skin of the lids gradually thins until it is like transparent parchment. A far more sat-

isfactory procedure is that of Wheeler wherein the outer portion of the lids is split in the grey line, the lid margins are removed, and a tongue of lower lid [with skin and conjunctiva removed] is brought into a pocket of the upper lid. This yields an attractive full-thickness blepharoplasty that retains the normal slope of the outer canthus. It is particularly beneficial in persistent exophthalmos as a cosmetic procedure where the condition has been present for so long that orbital decompression will not help.

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Dr. Christian Fenger's Last Clinic

J. W. DREYER, M.D., AURORA

THE last clinic that Dr. Christian Fenger gave was on a Friday afternoon in 1902. The patient was a man with a malady of the larynx; he needed a laryngectomy which, in those days, was a big operation.

During the course of the afternoon, Dr. Fenger went into all of the differential diagnoses, then sketched out with colored chalk on the blackboard the anatomy of the neck and the location of the larynx. He was a good chalk artist, and held his chalk, as well as his surgical instruments, with the thumb and middle finger because his index finger on the right hand had been amputated at the middle joint after an infection following an autopsy.

After giving his lecture, Dr. Fenger operated standing on a platform because he was so short. He was a meticulous operator, but not too fast. He was kind to his assistants but little things annoyed him. Once a nurse was holding a spotlight

attached to a long cord. During the course of the operation, he stepped back and caught his foot in the cord. With a slight Danish accent he said, "Damn! a t'ousand times damn!" which was all there was to it.

After finishing the operation in question, he turned the patient over to the assistants for the dressing, and went behind a screen to change his clothes. In a moment or two, he came back because of a little point he wanted to emphasize to the students. All he was wearing was his long woolen underdrawers, being bare from the waist up. I mention this to illustrate how deeply he would concentrate on his work and forget himself completely. Dr. Fenger was much devoted to his profession and cared little for acclaim.

It was then about 6:30 and practically no students had left the amphitheater. Around 2:00 a.m. he had a chill, developed lobar pneumonia, and in 48 hours was dead.



Primary Gastric Lymphosarcoma with Ten Years' Survival

KENT W. BARBER, M.D. AND ROBERT W. TAYLOR, M.D., QUINCY

PRIMARY lymphosarcoma involving the stomach, though not rare, is unusual, with a reported incidence of 3.7 to 5 per cent in comparison with gastric carcinoma. Long term reports on the follow-up of these cases are sparse. Jordan et al.¹ report an over-all five year survival rate of 37 per cent. Marshall and Meissner² report a five year survival of 33 per cent following total gastrectomy and 42 per cent following partial resection. Crile et al.³ report a group of six patients who are still alive and well from 5½ to 12 years following surgery, with an average survival of more than 8 years. In the past 10 years, three patients with primary lymphosarcoma of the stomach have been seen at The Quincy Clinic, two of whom have survived over 10 years; the third died of metastatic disease approximately 2½ years following surgery. It is the former two cases we wish to discuss in detail.

Sarcoma of the stomach presents no characteristic clinical features. In general, symptoms are similar to those accompanying gastric carcinoma or nonobstructing gastric ulcer. One feature previously reported, which may be of significance, is that the general condition of these patients was more satisfactory than in cases of gas-

tric carcinoma; cachexia and anemia, so common in gastric carcinoma, were not quite so evident. In a previously reported survey, 33 of a group of 41 patients with primary lymphosarcoma were considered in good or fair condition and four in poor physical condition. It also has been noted that the average age of patients with this disease has been approximately 10 years younger than those with gastric carcinoma. The incidence of lymphosarcoma again shows a greater preponderance of males but perhaps not quite as much as with gastric carcinoma.

The roentgenologic findings of lymphosarcoma in the stomach have been summarized as consisting of:

1. A filling defect with a smooth margin.
2. A localized type of tumor that is round and smooth.
3. Involvement of the larger portions of the stomach, simulating linitis plastica.
4. Mucosal rugae in thick folds.
5. The presence of palpable tumors in young individuals.
6. The presence of multiple ulcers.

These helpful signs are not necessarily diagnostic and it may be said that rarely is the preoperative diagnosis of sarcoma made correctly by roentgenologic examination.

On gross examination of the tumor, there are

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no distinguishing characteristics between lymphosarcoma and carcinoma, although sarcomas tend to be larger and more bulky, with a suggestion of encapsulation. The final diagnosis usually is made by the pathologist and frozen section is recommended.

The general consensus is that treatment should consist of radical extirpation of the lesion, followed by X-ray therapy. The best long term survivals have followed this plan, although biopsy alone—followed by X-ray therapy—has resulted in some 5 year survivals.

The first case is that of 50 year old white female who was referred by Doctor J. A. Miranda Vargas of Pittsfield, Illinois. This patient had a history of weakness of approximately five months' duration and a weight loss of five pounds in that period of time. She was seen by the referring physician three days prior to admission because of nausea and vomiting. Her weight at that time was 89 pounds. She was admitted to St. Mary's Hospital, Quincy, on June 18, 1948. Hemoglobin was 9.5 grams with 3,200,000 red blood cells and a white count of 6,800 with a normal differential. Parenteral fluids were given along with blood transfusions because of anemia. The urinalysis was not remarkable.

Upper gastrointestinal X-rays revealed the following:

"The esophagus is negative. The stomach is long, low, ptotic type and there is a sharply defined, abrupt transition in the mid-portion of the fundus of the stomach into a very narrow, irregular, ragged channel or lumen which extends downward toward the pylorus for a distance of approximately $3\frac{1}{2}$ inches, beyond which the lumen of the stomach resumes its normal caliber for a distance of $1\frac{1}{2}$ inches before entering the pylorus. The margins of this change are sharply defined on the lesser curvature side and irregular in outline, which suggests ulceration of a superficial character. The appearance of the lesion is that of an annular carcinoma infiltrating the gastric wall with superficial mucosal ulceration, almost completely surrounding the antral portion of the stomach. There is a sufficient amount of normal stomach proximal to this lesion so that it is deemed resectable. No evidence of obstruction is present."

On June 24, 1948 surgery was performed. A tremendous flat growth, occupying the mid-half of the stomach, arising from the lesser curva-

ture, was found. Numerous large adjacent glands were palpated but there was no evidence of any metastatic disease. A radical sub-total gastric resection, removing approximately three-quarters of the stomach, was done with an anterior Polya-type anastomosis.

The pathological description of the specimen revealed a pseudo-encapsulated tumor composed of a typical tumor cells that were well differentiated and derived from lymphoid tissue. A moderate number of mitotic figures were evident. The regional lymph nodes showed connective tissue proliferation but no evidence of metastatic involvement. The impression of the pathologist was lymphosarcoma of the stomach.

Postoperatively, the patient did well with no immediate postoperative complications. However, over the years, she has been troubled with a hypochromic anemia and moderate gaseous distention that has responded fairly well to hematinics and vitamin B₁₂. The patient was last X-rayed in 1955 and no abnormalities were noted. A report from her referring physician in January of 1958 revealed that her weight is approximately 93 pounds. She still has some gas but her anemia is fairly well controlled. There is no evidence of recurrence.

The second case is that of 68 year old white male, who again, was referred by Doctor J. A. Miranda Vargas of Pittsfield, in August of 1948. He had a history of a weight loss of approximately five pounds over a period of about six months and a daily temperature elevation. He had been treated by the referring physician for vitamin deficiency, and some infected teeth had been removed, after which he had gained weight. However, the temperature elevation persisted, usually only a degree to one and one-half degrees daily. Examination in August, 1948 revealed a weight of 132 pounds and a palpable mass in the epigastrium. The liver was not enlarged. X-ray studies were obtained which revealed a large lesion in the anterior surface of the fundus with rather sharply-defined margins, suggestive of a carcinoma or, possibly, a sarcoma. The patient refused surgery at this time.

The patient was given vitamin therapy with improvement in the soreness of his mouth and in his appetite. However, shortly before admission he began to develop epigastric soreness associated with vomiting and diarrhea.

The patient was admitted to St. Mary's Hos-

pital, Quincy, in October, 1948 at which time the blood count revealed a hemoglobin of 13 grams with 4,700,000 red cells; the white count was 5,000 with a normal differential. Other laboratory studies were within normal limits.

On October 13, 1948 surgery was performed at which time a large tumor on the anterior upper portion of the stomach, extending into the cardia, was found. The spleen was enlarged two or three times its normal size. Total gastrectomy with esophagoduodenostomy was performed. His postoperative convalescence was very satisfactory.

The pathologist's report on the resected stomach revealed, grossly, that the resected stomach probably represented a total resection. Along the lesser curvature, at the esophageal end, there was a large, irregular, flat ulceration and what appeared to be a rather firm, indurated tumor formation of the mucosa which, however, was freely movable over the underlying muscular layer. It did not appear to infiltrate. The attached mesentery along the greater curvature did not reveal any enlarged lymph nodes.

Microscopic sections revealed extensive superficial erosion of the gastric mucosa so that only a few of the terminal portions of gastric glands could be identified, lying in a rather loose, particularly submucosal stroma, that was packed with tumor cells, obviously derived from the lymphoid tissue. They were scattered diffusely in an infiltrating manner throughout the entire submucosa and, occasionally, between the bundles of the smooth muscle fibers in the immediate vicinity. These cells were mostly of the polyhedral shape, rather large, and had round, hyperchromic nuclei and, in many instances, oval and vesicular nuclei and occasional mitotic figures. The tumor cells were moderately well differentiated. The general picture varied somewhat from one area to the other. The lymph nodes were not involved. The pathologist's impression was lymphosarcoma.

The patient has been followed postoperatively, during which time he has had some digestive disturbances and mild anemia, which have been corrected with iron and vitamin B therapy.

In 1957 the patient had some pneumonitis in the lungs that was suggestive of metastatic lesions. However, the condition disappeared with antibiotic therapy, no X-ray therapy being administered. A repeat upper gastrointestinal X-

ray study on February 3, 1958 showed a normally functioning anastomosis between esophagus and duodenum. There was no evidence of recurrent tumor. A chest X-ray on February 3, 1958 showed some pneumonitis but no evidence of tumor within the lung fields.

The third case is that of a 63 year old white female who was admitted to Blessing Hospital, Quincy, on March 21, 1955 with a history of epigastric soreness with anorexia of approximately six months' duration. There was associated constipation; however, melena was denied. Approximately 10 pounds had been lost over this period, there was no special food aggravation, nor was distress related to the time of food ingestion. The history was otherwise not remarkable.

On admission, this patient looked older than her stated age and quite thin; her weight was 110 pounds. The blood count showed 4,400,000 red cells with 12 grams of hemoglobin and a white count of 4,450 with a normal differential. The total protein was 6.45 grams. Colon X-rays were negative. Stomach X-rays revealed a large polypoid tumor arising in the cardia on the lesser curvature.

Four days after admission, following a routine work-up, surgery was performed. A gastrotomy was done and a large polypoid tumor, which appeared to be encapsulated, arising from the mucosa in the cardia of the stomach on the lesser curvature, was found. Abdominal examination revealed no evidence of metastatic lesions and the frozen section revealed lymphosarcoma. It was thought to cure this patient, a total gastrectomy would be necessary. However, about this time she began to have anesthetic difficulties with a rapid pulse and her condition seemed poor; accordingly, a resection of the tumor from its origin in the stomach wall was performed. This area was oversewn and the abdomen closed. Postoperatively the patient received X-ray therapy consisting of 2,400 roentgens to the epigastric area given while she was hospitalized. She did fairly well postoperatively but still had some anorexia. Her weight was maintained.

She was not seen again until April, 1956 at which time she presented a left supra-clavicular mass which she stated had been there for approximately three months with slow enlargement. At that time a mass approximately three inches in diameter was felt in the supra-clavi-

cular area and this was believed to be a recurrence. The patient was given 1,000 roentgens of X-ray therapy to this area with an excellent response in that the lesion completely melted. On admission to the hospital at this time she had a red count of 4,420,000 cells with 12.9 grams of hemoglobin.

In October of 1956 the patient again returned with soreness in the left lower abdomen and along the left hip. An ill defined mass was felt in the left lower quadrant of the abdomen for which another 1,000 roentgens of X-ray therapy were given and the lesion melted away. Stomach X-rays at that time were completely normal, showing no evidence of any recurrent lesions.

The patient was re-admitted to the Hospital in January, 1957 with a recurrence of many nodules within the abdomen and the left thigh which responded poorly to X-ray therapy. On admission this time her hemoglobin was 11 grams and her weight was down to about 85 pounds. She went into a terminal condition and died in March, 1957. Autopsy was obtained which revealed multiple lymphosarcoma throughout the whole perineum.

DISCUSSION AND SUMMARY

Although three cases do not comprise a series, they do re-emphasize the fact that cases of this kind, with adequate treatment, have a hopeful prognosis for long survival and a comfortable life without disabling gastrointestinal symptoms.

The admitting gastrointestinal distress was not in any way specific of lymphoma but symptoms in all of the cases were of increasing severity although obviously late in appearing in comparison to the size of the tumor found.

Gastrointestinal bleeding was not noted by the patients and in only one case was the guaiac test positive, although all three cases had anemia,

one rather severe.

The postoperative course of these patients also revealed a mild anemia of a hypochromic nature that has necessitated intermittent therapy since surgery, undoubtedly due to the extent of resection performed. Hyperchromic anemia has not been observed.

The radiologist cannot make a differential diagnosis of lymphosarcoma, as was demonstrated in this report, two cases being called carcinoma and the other suspicious of sarcoma.

Without question, surgery with extirpation of the lesion is the therapy of choice, if at all possible, but satisfactory palliation with X-ray therapy can be obtained. Undoubtedly, nitrogen mustard therapy or one of the similar type agents could be used also although X-ray is certainly more specific to the area of treatment and, thus far, has not been proved inferior to other agents, for therapeutic or palliative treatment.

Certainly, one should not despair when a large gastric tumor is found. Adopt a "look-and-see" attitude as a number of these lesions are not carcinoma but potentially curable tumors with a favorable prognosis, such as leiomyoma or leiomyosarcoma, endothelioma, polyps, or lymphosarcoma, as described.

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Agranulocytosis and Jaundice Following Chlorpromazine Therapy

WERNER TUTEUR, M.D., GEOFFREY KENT, M.D., and
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Agranulocytosis and jaundice are well known complications of chlorpromazine therapy. Their combined occurrence in the course of such therapy must be extremely rare, only three case reports having come to our attention¹⁻³. The English literature contains a total of 49 cases of agranulocytosis associated with chlorpromazine therapy⁴, and the longest interval recorded between the beginning of treatment and the outbreak of agranulocytosis is about three months⁵. At Elgin State Hospital approximately 4,000 patients have received chlorpromazine. One of these patients who developed fatal agranulocytosis was described elsewhere⁴. Recently another case with both agranulocytosis and jaundice came to our attention; symptoms appeared after more than five months of continuous chlorpromazine therapy.

Clinical history: This patient was admitted to Elgin State Hospital on December 29, 1950 with a psychiatric diagnosis of "chronic brain syndrome associated with circulatory disturbance with psychotic reaction." She was born in Finland on September 1, 1891, and immigrated to this country with her mother when she was 13 years old. She was unmarried and had been a housemaid but had not worked for two years prior to admission. She had spent approximately six months at a private nursing home, but her behavior was such that she could no longer be tolerated. She would scream frequently, and after threatening to kill a nurse, was transferred to the Illinois State Hospital System. She was described as forgetful, irritable, and disoriented in all spheres prior to arrival at the institution.

From the day of admission until August, 1951, the patient made an uneventful adjustment, but at times she was noisy. This manifestation increased in frequency during the follow-

ing years. On May 8, 1956, she was placed on chlorpromazine, 100 mg. b.i.d. and received this medication continually until August 31 of the same year, when she had to be transferred to the infirmary for a leg infection. There she received reserpine, 1 mg. b.i.d., up to February, 1957. She was not given further tranquilizing drugs until September 7, 1957, when she again became noisy. Chlorpromazine, 100 mg. b.i.d., was started. On February 13, 1958, she became weak and jaundiced and was sent to the hospital.

Physical Examination: The pulse was 124, temperature 104°F., and respirations 28 per minute. Minute, well outlined ulcerations were present about both tonsils, skin and sclerae were jaundiced, lungs were essentially clear, heart sounds were distant and a soft systolic murmur was heard over the precordium, the liver was slightly enlarged and tender, and the extremities were negative.

Laboratory: The blood findings are set out in Table 1. The clotting time (Lee and White) was 6 minutes, bleeding time 1 minute 40 seconds (Duke), prothrombin time 18 seconds, platelets 160,000/cmm., and reticulocytes 0.5%. Total serum proteins were 6.3 gm./100 ml. (albumin 3.4, globulin 1.9, A/G ratio 1.8), thymol turbidity 4 U. (Kingsbury), and alkaline phosphatase 3.5 U. (Sigma). The direct and indirect van den Bergh were positive. The icterus index was 40. Serum cholesterol was 162 mg./100 ml. with 70% cholesterol esters. Cephalin cholesterol flocculation was 3 plus. Serology was negative. Urinalysis revealed a specific gravity of 1.020, albumin 1 plus. Sugar, acetone, and microscopic examination were negative.

Course: The patient was treated with penicillin, 600,000 units b.i.d., which was increased to 600,000 units q.i.d. on February 16th, 1958. She also was given Vitamin K, 10 mg. On the same day she received 1,000 cc. of 5% glucose

From the Illinois Department of Public Welfare, Elgin State Hospital, Elgin.

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Table 1

Date	WBC (per cu. mm.)	Neutro %	Lymph %	Monocytes %	Stabs %	Hb. gm. %	RBC (million per cu. mm.)	HM. %
2-13-58	800	2	98	0	0	11.1	3.9	34
2-14-58	600	—	—	—	0	11.3	—	35
2-14-58	950	26	60	5	9	—	—	—
2-14-58	600	12	86	0	2	—	—	35
2-15-58	700	16	82	0	2	—	—	—
2-16-58	950	26	60	5	9	—	—	—
2-16-58	13,600	17	30	47	6	—	—	—

in saline, and again on February 17th, together with 500 mg. of Vitamin C. When her condition became critical she received Coramine®, 1 cc., and oxygen by nose. She expired on February 17th.

Autopsy: The body was that of a fairly well nourished, well developed, white female of the stated age of 66. Skin and sclerae were distinctly jaundiced. There was no edema. The pupils were equal and measured 4 mm. in diameter. There was moderate rigor mortis and distinct dorsal lividity.

Primary incision revealed dry pleural and peritoneal spaces. The left lung was adherent to the chest wall but could be separated with relative ease. The intestines were distended with gas. Anatomical relationships in the serous cavities were normal. The heart weighed 250 grams. The apex was formed by the left ventricle. The epicardium was smooth and glistening. The cusps and valves were not remarkable. The myocardium was brown. The coronary arteries showed only mild atherosclerosis. The lungs together weighed 900 grams. Both pleural surfaces were partially covered by fibrous membranes. This was particularly marked on the left. A well defined circumscribed area of consolidation was noted in the right lower lobe. It measured 4 cm. in longest diameter. Its cut section was dark brown and granular. The bronchi contained a fair amount of gray debris and the mucosa was injected and swollen. The hilar lymph nodes were enlarged and soft.

The gastrointestinal tract was not remarkable. A large amount of solid, clay-colored fecal material was present throughout the rectum and sigmoid colon. The liver weighed 2,200 gm. The anterior border was blunt. On cut section there was a faint green hue. The lobular markings were preserved and the central veins were accentuated. The gall bladder and bile ducts were not remarkable. The spleen weighed 180 grams.

The capsule was wrinkled and the consistency soft. The kidneys together weighed 280 grams. The surface was granular. On cut section the cortices were only slightly diminished in width. The cortico-medullary junction was markedly accentuated. The adrenals were small, the cortices thin, and the lipid content was decreased. The vagina and cervix were not remarkable. Numerous small fibroids protruded into the uterine cavity and numerous other fibroids were noted within the wall. The tubes and ovaries were not abnormal. The bone marrow in the mid-femur was fatty. The vertebral marrow was not unusual. The arteries at the base of the brain showed marked atherosclerosis with diminution of the lumen. The cerebral hemispheres exhibited narrow gyri and deep sulci, particularly in the frontal and parietal lobes.

Microscopic examination: Multiple sections from various portions of the liver revealed a similar picture throughout. The architecture was well preserved. The liver cell plates appeared atrophic and the sinusoids were congested, particularly in the central portion of the lobule. The most conspicuous feature was a considerable amount of bile pigment located mainly within the lobular centers, either in the form of plugs within the bile canaliculi or within the hepatic cells. (Figure 1). Bile pigment within Kupffer cells was rarely seen. An occasional plug of bile pigment was seen in the periportal areas. The liver cells were well preserved and, except for focal variation in size, no evidence of hepatocellular damage was noted. The portal fields were of normal dimensions; some were edematous and most contained a considerable round cell infiltrate. Eosinophiles were not encountered among these cells. In some periportal areas, an increase in the number of bile ductules was noted, surrounded by a cellular infiltrate. The bile ducts were of normal appearance.

Sections from the spleen revealed normal sized

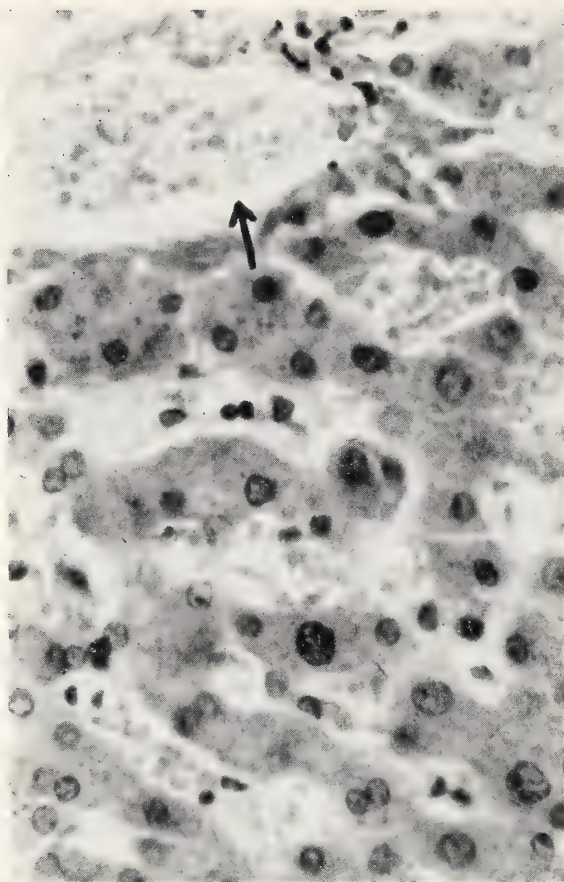


Figure 1. Liver cell plates intact around central vein (arrow). Variation in the size of nuclei is the only degenerative change observed. Note also bile pigment within hepatic cells. Hematoxylin-eosin, Mag. 400x.

Malpighian follicles. The red pulp was congested, and in addition, exhibited a marked increase in reticular elements. The smaller arteries were sclerotic. The pancreas was intact and islets of Langerhans were plentiful. Moderate fatty infiltration was noted. The adrenals were congested, as were the kidneys. The latter showed numerous bile casts within the distal convoluted tubules. Cellular damage of the tubules was not evident. Small subcortical scars of arteriosclerotic origin were scattered throughout the section. The glomeruli were not remarkable. In the heart sections, the myocardial fibers were small. An abundance of lipochrome pigment was seen around the nuclear poles. The architecture of the lymph nodes was exaggerated by an extensive sinus catarrh. The area of consolidation in the lung exhibited an intra-alveolar exudate consisting of erythrocytes, varying amounts of fibrin, and relatively few inflammatory cells. Seg-

mented leukocytes were scarce. Many bacterial colonies were noted in this area. These features are consistent with a pneumonic process in the presence of granulocytopenia. Other lung sections revealed only an intra-alveolar protein precipitate. The femoral bone marrow was completely fatty and devoid of any foci of hemopoiesis. The vertebral bone marrow was markedly hypocellular and contained an abundance of fat. (Figure 2.) Cellular elements were considerably decreased and many of these were lymphocytes. Few elements of the myeloid series were recognized. The ovaries were atrophic. A diminution of neuronal elements and an increase of neuroglia were noted in the sections from the gray matter of frontal and occipital lobes. All brain sections revealed pericellular and perivascular edema.

Anatomical diagnosis: Chlorpromazine agranulocytosis with terminal bronchopneumonia. Fatty femoral bone marrow. Hypoplastic verte-

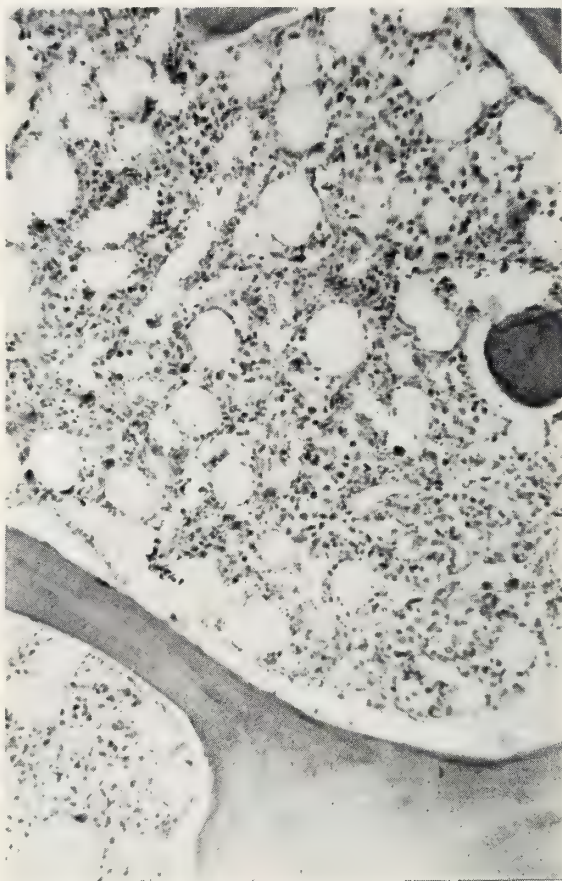


Figure 2. Bone marrow showing much fat and accumulation of lymphocytes. Hematoxylin-eosin, Mag. 100x.

bral bone marrow with lymphocytosis and scanty myeloid elements. Intrahepatic cholestasis without hepatocellular damage. Pulmonary edema. Acute bronchitis. Bilateral fibrous pleurisy. Coronary and cerebral atherosclerosis. Brown atrophy of heart. Acute splenitis. Atrophy and congestion of adrenals. Passive congestion of liver and kidneys. Biliary nephrosis. Nephrosclerosis. Lipomatosis of pancreas. Uterine fibroids, submucous and intramural. Atrophy of ovaries. Cerebral atrophy, frontal, parietal, and occipital. Cerebral edema. Clay colored stools. Jaundice.

COMMENT

The presented case has two prominent features: severe granulocytopenia and jaundice. A causal relationship between the administration of chlorpromazine and agranulocytosis seems likely, though this cannot be proved. The bone marrow findings are those often seen in agranulocytosis. Except for a small area of bronchopneumonia, the autopsy does not reveal other relevant disease, and chlorpromazine was the only medication received by the patient.

The nature of the cholestasis is uncertain. It may be the result of terminal sepsis alone, a mild hepatic lesion produced by sepsis and aggravated by chlorpromazine, or chlorpromazine therapy alone. The liver exhibited centrilobular accumulation of bile pigment, a mononuclear cell infiltrate in the portal triads, and a focal increase in periportal ductules. Laboratory tests and histopathology in particular fail to reveal evidence of hepatocellular damage, and the obstructive nature of the jaundice is indicated also by acholic stools. Cholestasis may be seen in agranulocytosis⁶ presumably as a result of toxic hepatitis following infectious processes. This possibility must be given due consideration but does not receive support from the morphologic findings in the liver. Complete lack of hepatocellular damage is unusual in toxic hepatitis. As regards the second alternative, numerous workers^{7,9} have suggested that pre-existing liver disease may predispose to chlorpromazine jaundice. Our own observations in rats¹⁰ support this contention in that chlorpromazine aggravates considerably the jaundice in ethionine induced hepatitis. Finally, chlorpromazine cholangiolitis must be seriously considered. Points in its favor are the obstructive nature of the jaundice, lack of hepatocellular

damage, and a hepatic morphology compatible with that of chlorpromazine cholangiolitis. Neither of the possibilities submitted can be proved.

The mechanism responsible for the production of either agranulocytosis or jaundice in chlorpromazine therapy is not well understood. In both instances, direct toxic effects or hyperimmune reactions have been suggested^{11,12}. The evidence at hand distinctly favors an allergic mechanism or an idiosyncrasy. What is this evidence? Only a small fraction of persons exposed to chlorpromazine are affected. The delayed nature of the reaction, the lack of relationship between dosage and duration of drug therapy to the symptoms produced, the systemic prodromata, the reported acceleration of symptoms at the second trial of the drug^{11,13,14}, and the eosinophilia in the peripheral blood and in the liver infiltrate, are all strong points in favor of an allergic mechanism. Furthermore, chlorpromazine has been known to be allergenic and to produce contact dermatitis, urticaria, and asthma. Finally, a leucocyte-agglutinating substance¹⁵ can be demonstrated in some cases of agranulocytosis. Why drugs will produce depression of myelopoiesis on one occasion, skin reaction on another, and hepatitis on a third, remains a problem.

The remarkably long interval between institution of chlorpromazine therapy and the onset of complications, as reported in this case, is not too surprising if it is recalled that simple compounds must conjugate with proteins before they can act as antigens. The manifestations of these drugs may depend largely upon the manner and speed with which such conjugation occurs. The patient's blood count rose prior to death, indicating a remission of the agranulocytosis. She might have recovered completely, had she not succumbed to the pneumonic process.

SUMMARY

A case is presented in which agranulocytosis and an obstructive type of jaundice appeared after more than five months of chlorpromazine therapy. A casual relationship may be assumed between this therapy and the injury to the myelopoietic cell series. The nature of the jaundice is uncertain.

ACKNOWLEDGMENT

Acknowledgment and thanks are expressed to

Dr. Edwin Lawson, who attended the patient throughout the course of her terminal illness.

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Adaptation

We need, a concept of health that will take account of the individual's ability to live in his society without breakdown and to resist its pressures. We are still so far from this that laymen do not distinguish the immune from the well adapted or even from the conformist. Yet, if we had an adequate idea of what adaptation means, we should recognize the distinction as crucial. Adaptation is a continuous process. Its agents are not those who are commonly called the well adapted, still less the conformist; they are those who can carry within themselves without injury a more than usually large measure of tension—tension between the norms of individual and social experience, between the "is" and the "ought to be," between the present and the fu-

ture—in a word, those who have a high degree of immunity to the pressures that threaten our mental health. I have no doubt that such a concept of health and its conditions would give a new clarity to our understanding of individual freedom and of the process of democracy, for I believe that both freedom and democracy depend on this rare quality. *Sir G. Vickers, V.C. What Sets the Goals of Public Health? New England J. Med. Mar. 20, 1958.*

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Medical technology symposium

The Frank E. Bunts Educational Institute, affiliated with the Cleveland Clinic Foundation, and the Cleveland Society of Medical Technologists will co-sponsor a symposium on medical technology in Cleveland, November 20-21.



Polyarteritis Nodosa

FRANCIS J. TENCZAR, JR., M. D., CHICAGO

AN 80 year old retired schoolteacher entered the hospital because of pain in the hands, shoulders, and neck; pedal edema; fatigue; and weakness.

Present illness: The patient had had osteoarthritis for many years, but seven months before admission her wrists became acutely inflamed. She received Meticorten® and salicylates for about six weeks and the episode subsided. Three months later, pain and swelling in the wrists recurred and at this time the knees were similarly involved. She responded only slightly to Medrol® but showed some improvement after receiving Co-deltra®. Several weeks before admission, while receiving prophylactic antibiotics, she underwent a dental extraction. During the subsequent several days the wrists and knees became worse and the ankles became involved. In addition she noted numbness and weakness of the lower extremities and dependent edema of the ankles and legs. This edema was slightly improved by a low sodium diet and Diuril®. A week before admission the steroid medication was changed to Kenacort® with considerable improvement in the affected joints. However, pain persisted in the ankles which became more edematous.

Past history revealed bronchiectasis for 10 years. She had had bilateral cataract extractions and two breast biopsies.

Review of systems: The patient had lost 10 pounds in the preceding six months. There was no orthopnea or paroxysmal nocturnal dyspnea. Anorexia was noticed recently but there was no abdominal discomfort or intolerance to specific foods. There was a 2-4X nocturia. There were no known allergies. The patient had been hypertensive for many years.

Family history: Noncontributory.

Physical examination: Physical examination revealed an alert, co-operative, thin, white female who was not in acute distress. Temperature 98.6° F., pulse 100, respirations 20, blood pressure 174/100 mm. Hg., height 5'8½", weight 120 lb. Examination of head and neck revealed residual pupillary scars from previous cataract operations. The fundi appeared normal and the visual fields were intact. There was no nystagmus and the external ocular movements were normal. The cranial nerves were normal. The neck was not remarkable. Dullness to percussion, decreased breath sounds, and rales were heard at the base of the right lung posteriorly. Examination of the heart revealed a sinus mechanism with occasional ectopic beats; no murmurs; and no cardiac enlargement. No masses were palpated in the breasts. The lower border of the liver was situated

From the Department of Pathology of Chicago Wesley Memorial Hospital and Northwestern University Medical School, Chicago.

at the right costal margin. No other abdominal organs or masses were palpated. There was 3+ pitting edema of the ankles. Heberden's nodes were present over the fingers. No abnormal neurologic signs were elicited.

Laboratory data: The urine was straw colored; alkaline reaction; specific gravity 1.025; negative tests for albumin and sugar; 2 to 5 RBC, 0 to 3 white cells, and 0 to 2 epithelial cells per high powered field in the centrifuged sediment. Hematologic examinations showed: hematocrit — 39%; white count — 18,450; differential — 78 segmented and 12 unsegmented neutrophils, 7 lymphocytes, and 3 monocytes. The sedimentation rate was 44 mm./hr.; C-reactive protein test — positive; antistreptolysin O titre — 12 Todd units. The fasting blood sugar, NPN, and uric acid tests were normal. The total serum protein was 4.9 grams with 2.8 grams albumin. The total serum cholesterol was 139 mg. per 100 ml. with 62% cholesterol esters. Serum electrolytes were normal. The blood Kahn was negative. LE preparations were negative. A serum transaminase determination was 92 units. Two urine specimens were negative for porphyrins. A urine culture yielded a growth of *Proteus vulgaris* sensitive to dihydrostreptomycin and Novobiocin®.

Roentgen examination of the chest showed focal calcification of the right pleura and multiple old healed rib fractures on the right. There were no pulmonary infiltrates. There was a generalized osteoporosis. Examinations of hands, wrists, and ankles revealed extensive osteoporosis and decalcification with some narrowing of the distal interphalangeal joints. These findings suggested osteoarthritis with a superimposed disuse atrophy. There was considerable calcification of the arteries in the region of the ankles and the tendon of the infraspinatus muscle. Examination of the skull showed minimal hyperostosis frontalis interna but no evidence of a space occupying lesion.

An electrocardiographic tracing showed prominent P waves suggestive of P pulmonale in 2, 3, and AVF.

Hospital Course: The patient was treated with steroids, low sodium diet, methyltestosterone, calcium lactate, diuretics, Furadantin®, and daily physiotherapy. During the first two weeks of hospitalization edema decreased and appetite improved. Weakness persisted. The temperature

was normal except for an elevation to 100° F. on the second hospital day and the pulse fluctuated between 80 and 110. On the 16th hospital day, dependent edema became more marked and she complained of pain in the quadriceps muscle as well as increasing weakness of the lower extremities. On the 19th hospital day pain in the upper anterior chest wall was noted on coughing and X-rays showed a recent fracture of the left 3d rib at the anterior auxiliary line. A neurologic consultant on the 24th hospital day reported the cranial nerves to be normal. There was, however, generalized muscle wasting without fasciculations and no clonus was observed. All limbs were hypotonic. She was unable to walk and barely able to move her toes or abduct the legs. The deep tendon reflexes were symmetrically diminished. The ankle jerks and abdominal reflexes were absent. There was minimal dysmetria in performing the finger-to-nose test and a mild bilateral intention tremor. She was unable to perform the heel-to-knee test. There was a bilateral "stocking" hypalgesia and decreased proprioception and temperature sensation, most marked distal to the knees. A left radial wrist drop was present and sensation was diminished in the distribution of the radial nerve. Electromyographic studies of the left tibialis anticus were interpreted as compatible with a lower motor neuron lesion. A spinal puncture revealed normal dynamics, cell count, and protein content. Motor weakness and sensory loss increased in both upper extremities. After the second week of hospitalization she had temperature of 99—100° F. intermittently. The pulse continued to fluctuate between 80 and 110. On the 35th hospital day the temperature increased to 101° F. She became lethargic and disoriented. Basilar rales were heard over the left chest. Disorientation and weakness progressed and on the 38th hospital day, feedings were administered through a gastric tube. Her temperature increased to 103° F. and she expired on the 39th hospital day.

CLINICAL DISCUSSION

Frederick A. Lestina, M.D.*: This elderly white lady was admitted to the hospital complaining of arthralgia, pedal edema, and weakness. Actually her symptoms began seven months ago with inflammation of the wrists that responded to a course of steroid and salicylate ther-

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apy. These agents were less effective when arthritis recurred later. One month before admission to the hospital, another exacerbation followed a dental extraction and at that time the ankles and knees as well as the wrists were involved and there was numbness in the lower extremities and ankle edema. The patient was anorexic and had lost 10 pounds in the preceding six months. The past history is significant in that hypertension, unaccompanied by orthopnea or dyspnea, and osteoarthritis had been present for many years.

Physical examination revealed a normal temperature, tachycardia, and a blood pressure of 174/100 mm. Hg. Positive physical signs included pedal edema; Heberden's nodes; and dullness, decreased breath sounds, and a few rales over the right pulmonary base. In view of the subsequent course the absence of neurologic signs on admission is important.

Significantly abnormal laboratory findings included neutrophilia; abnormal acute phase reactant determinations — positive C-reactive protein, and elevated sedimentation rate; increased serum transaminase; and lowered serum albumin. These suggest some nonspecific inflammatory process.

Radiologic examinations revealed a generalized osteoporosis, multiple old rib fractures, and foci of calcification in the right pleura, infraspinatus tendon, and vessels of the lower extremities. Nothing in the clinical history suggests a definitive reason for these findings. Serum calcium, phosphorus, and alkaline phosphatase determinations might have helped but were not done. Radiologic confirmation of the osteoarthritis was not unexpected. The electrocardiographic changes were nonspecific.

During the hospital course the patient at first improved with the use of steroids, a low sodium diet, and diuretics but subsequently ankle edema not only recurred but became more severe. Weakness increased progressively and on the 16th hospital day pain was noted in the quadriceps group of muscles. The patient's chest pain at that time was associated with cough and may have been related to the recent fracture of the left third rib. An intermittent fever of 99-100°F. appeared. In the 4th week of hospitalization, neurologic findings became prominent, including pronounced muscular wasting and hypotonia, diminished deep tendon reflexes, radial wrist drop, and sen-

sory changes. The patient then became disoriented, fever increased, rales appeared in the lungs, and she expired.

This in summary is the essence of the clinical problem that confronts us today. In my discussion I am going to consider the possible diagnoses in an order of increasing probability.

Hyperparathyroidism must be considered because of generalized demineralization of bone; multiple fractures of the ribs without evident cause; and foci of calcification involving the infraspinatus tendon, pleura, and vessels. However, no definite alterations were observed in the lamina dura and calcium and phosphorus determinations were not done on serum or urine.

Hyperthyroidism with thyrotoxic myopathy could explain this patient's weakness, fatigue, and neurologic manifestations but serum protein bound iodine and basal metabolic studies are not available to support this diagnosis.

Subacute bacterial endocarditis, especially in the aged, may be manifested by an obscure febrile illness with, joint involvement in 25 per cent of the cases. This condition may be excluded by the absence of cardiac murmurs and embolic phenomena.

Amyloidosis, in the absence of albuminuria or other signs of impaired renal function, is unlikely.

Rheumatoid arthritis may be dismissed in the absence of the expected characteristic radiologic findings.

Polyneuritis is characterized by pain, paresthesias, tenderness of muscles and nerve trunks as well as objective sensory changes relative to touch, pain, cold, position, vibration, and diminished deep tendon reflexes. Many of these signs and symptoms were present in this patient and several possible etiologic factors must be entertained.

1. Penicillin therapy. This patient most likely received penicillin at the time of her dental extraction. Polyneuritis due to penicillin usually involves the sciatic or peroneal nerves.

2. Vitamin deficiency. Beriberi frequently occurs in older individuals who live on a generally inadequate diet with highly milled cereals as the chief source of calories. In the dry type of beriberi, the central nervous system may be involved and the neuritis affects first the lower and then the upper extremities. Eventually cardiac failure ensues. Some aspects of this case would

fit a diagnosis of beriberi but so many other characteristic features are absent I must discard this diagnosis.

3. Acute infectious polyneuritis may be excluded by the normal spinal fluid studies and the afebrile course until late in this patient's illness.

4. Carcinoma with cachexia is unlikely in the absence of localizing signs and symptoms of a primary tumor.

5. Rheumatic fever may cause polyneuritis but arthralgia would be the only supporting clinical finding in this case. The absence of cardiac involvement and the normal antistreptolysin O titre exclude this diagnosis.

6. Tuberculosis is excluded by the absence of any evident focus of active tuberculous infection.

Collagen Diseases. I feel the diagnosis will fall into this group of diseases.

1. Systemic lupus erythematosus may be reasonably excluded by the advanced age of the patient; negative serologic test for syphilis; absence of leucopenia, thrombocytopenia, and hyperglobulinemia; and repeated failure to demonstrate the LE phenomenon. I appreciate the possibility, however, that the LE test may be negative in a patient receiving steroids. Arthralgia and elevated sedimentation rate are the only positive findings favoring a diagnosis of lupus erythematosus and these alone are insufficient. In addition, central nervous system involvement in lupus usually is manifested as convulsions or other irritative phenomena of the brain and peripheral neuritis, so striking in this case is rare.

2. Scleroderma is discarded for lack of cardinal manifestations.

3. Dermatomyositis or panmyositis is worthy of serious consideration. This disorder often masquerades as an atypical rheumatoid arthritis or rheumatic fever which does not respond to therapy. Muscular weakness and tenderness, particularly in the upper extremities; skin lesions; fever; malaise; Raynaud's phenomenon and periorbital facial edema often are seen. The diagnosis usually is established by biopsy of skin and skeletal muscle. Among the collagen diseases the incidence of dermatomyositis is second only to systemic lupus. In 18 per cent of cases of dermatomyositis a neoplasm, usually of the ovary, breast, or stomach, is found.

Many of the laboratory findings are compatible with the diagnosis of dermatomyositis — elevated sedimentation rate, negative serology, normal

serum globulin, and normal urinalysis. Moreover roentgen examination in dermatomyositis often reveals osteoporosis and subcutaneous calcification. However, in dermatomyositis the serum transaminase usually is very high, even up to 1,000 units, and in this case there was only a relatively slight elevation to 92 units. Moreover, I feel that the complaints of weakness and pain in the hands, shoulders, and neck are due to involvement of the central nervous system rather than skeletal muscle. Dermatomyositis also is uncommon at the age of 80. For these reasons I am going to dismiss dermatomyositis and discuss the disease I believe this patient had — polyarteritis or periarteritis nodosa.

4. Polyarteritis occurs more often in males in a ratio of 3:1. The usual age is 20-50 years but cases have been reported in 10 day old infants to adults of 80. The presenting symptoms may suggest acute rheumatism, myositis, or neuritis. Low grade fever, weakness, palpitation, dyspnea, cough, vomiting, headache, and visual disturbances may occur. Urinalysis is abnormal in 80 per cent of cases and in 25 per cent, azotemia may contribute to a fatal outcome. Cardiac failure is the most common cause of death. The majority have hypertension and there is cardiac enlargement in 50 per cent. Other organ systems often involved include: gastrointestinal, 37 per cent; central nervous system, 50 per cent; musculoskeletal, 75 per cent; skin, 29 per cent; and respiratory, 10 per cent.

In addition to urinary abnormalities and azotemia frequently there are a normocytic hypochromic anemia, eosinophilia, decreased serum proteins with a reversal of the A/G ratio but without an increase in the globulin fraction, and an abnormal electrocardiogram.

The typical case of polyarteritis is a middle-aged male with intermittent fever and clinical findings indicating involvement of several organ systems — hypertension, cardiac failure, hematuria, eosinophilia, peripheral neuropathy, and abdominal complaints, Kemper, Boggengstoss, and Slocumb¹ has described an entity occurring in patients who have received steroid hormones for months or years. The clinical findings and course of this condition are similar to those of polyarteritis.

I am going to make to a diagnosis of polyarteritis even though this patient was a female and 80 years of age. The most important clinical evi-

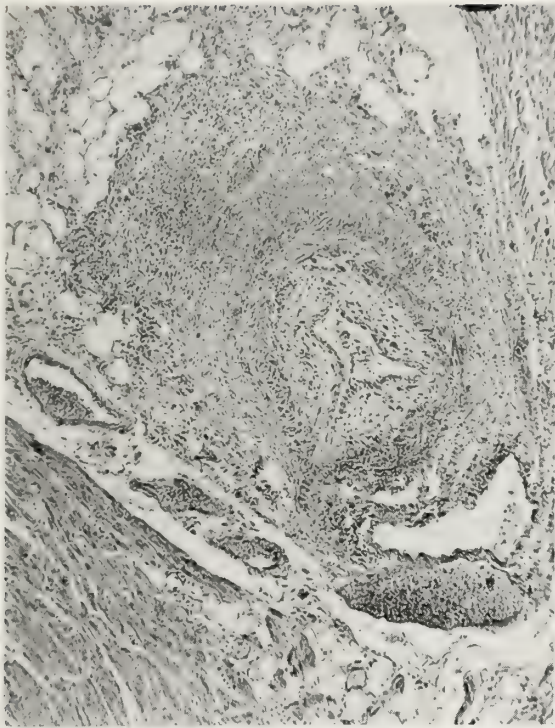


Figure 1. Photomicrograph showing acute exudative inflammation of artery in pericardial fat. Hematoxylin and Eosin. x 190.

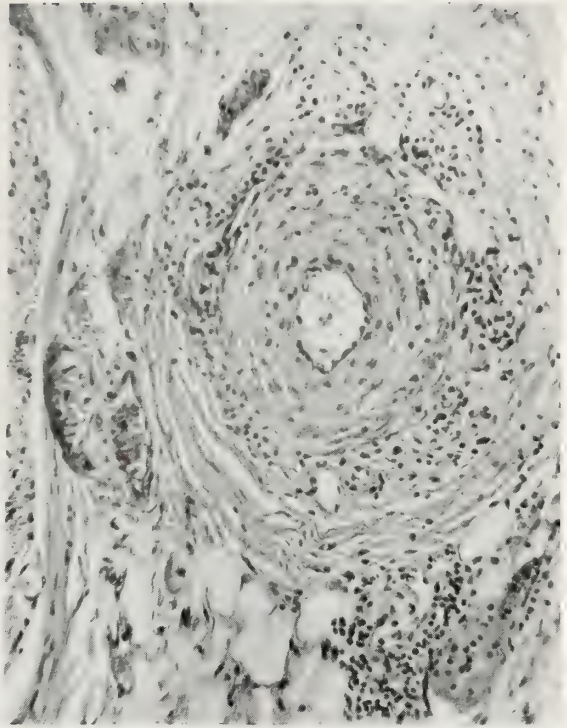


Figure 2. Photomicrograph of artery in section from left radial nerve showing perivascular leucocytic infiltration. Hematoxylin and Eosin. x 300.

dence supporting this diagnosis is the onset and progression of peripheral neuritis. Other findings—muscular pain, arthralgia, weakness, fever, and failure to respond to the administration of steroid hormones—all support this diagnosis.

DR. LESTINA'S DIAGNOSIS

Polyarteritis (Periarteritis nodosa).

ANATOMIC DIAGNOSES

Polyarteritis nodosa involving heart, skeletal muscle, liver, spleen, pancreas, adrenals, kidneys, intestine, peripheral nerve (left radial), and central nervous system with recent infarct of the right basal ganglia.

Osteoarthritis.

PATHOLOGICAL DISCUSSION

At autopsy the patient appeared emaciated. External examination revealed ulnar deviation of both wrists, fusiform swellings of the interphalangeal joints with atrophy of the interosseous muscles, swellings of both knees, slight edema of the lower extremities, and a decubital ulcer over the sacrum.

On gross examination the weights of the organs were within normal limits and except for the brain, no significant visceral lesions were seen.

The brain weighed 1,100 grams. No external abnormalities were noted but on sectioning a focus of softening 1.5 cm. in diameter was found in the putamen of the right basal ganglia. The kidneys showed only slight granularity of the cortices. There were fibrous adhesions with foci of calcification in both pleurae. On sectioning the lungs were moderately emphysematous.

Microscopic examination revealed arteritis involving almost all of the organs. Small arteries and arterioles (Figure 1 and 2) characteristically showed edema and necrosis of the media accompanied by a leucocytic reaction in the media as well as the surrounding adventitia. The inflammatory cells were chiefly neutrophils and lymphocytes. Eosinophils were not numerous. The lesion in the right putamen showed recent necrosis. A small vessel in the adjacent tissue (Figure 3) was eccentrically "cuffed" by an infiltration of inflammatory cells in the adventitia. The media was necrotic and the lumen contained eosinophilic "fibrinoid" thrombus.

These findings establish the diagnosis of polyarteritis nodosa which, as Dr Lestina indicated, readily accounts for the clinical course of this patient. The recent infarct in the right basal

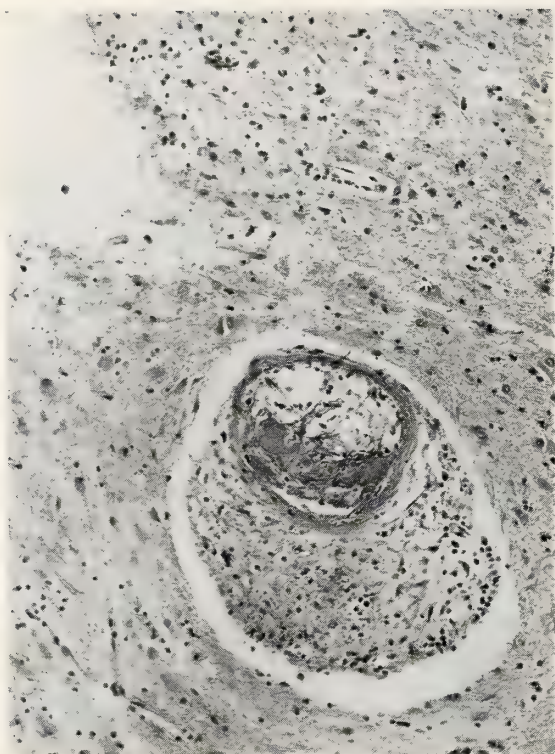


Figure 3. Photomicrograph of section from right basal ganglia showing vessel adjacent to a recent infarct. Note the perivascular inflammatory reaction in adventitia and thrombus in lumen.

Hematoxylin and Eosin. $\times 300$.

ganglia probably occurred shortly before and precipitated her death.

The etiology of polyarteritis nodosa is unknown. Prominent theories include allergy and hypersensitivity, infection, and hypertension. The changes in the tissue encountered in polyarteritis are similar to the findings in known allergic and

hypersensitivity states such as the Arthus's phenomenon, serum sickness, and drug reactions. The sulfonamides have been implicated most frequently but polyarteritis has been reported after administration of penicillin and other antibiotics. Polyarteritis nodosa has appeared after a wide variety of infectious diseases but no proved etiologic agent has ever been isolated. Hypertension has been considered as an etiologic factor chiefly because it occurs so frequently in polyarteritis.

Dr. Paul Winter: Is there any relation between polyarteritis and treatment with steroid hormones?

Dr. Tenczar: Kemper, Baggenstoss, and Slocumb¹ have reported arteritis following administration of cortisone to patients with rheumatoid arthritis. Four of 14 patients receiving cortisone developed vascular lesions. No instance of arteritis was observed in 38 patients who did not receive cortisone.

Dr. George Smetters: How often are the kidneys uninvolved in polyarteritis?

Dr. Tenczar: Pathologic changes in the renal vessels are encountered in most patients. Clinical symptoms of renal involvement occur in about 50 per cent of cases. Abnormal urinary findings — albuminuria, red cells, and casts — are found in about 80% of cases.

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EDITORIALS



Maternal welfare programs in Illinois

The protection of mothers and newborn babies from the inescapable hazards of parturition and their return to their families well and strong is a task worthy of the best efforts of any man or woman engaged in the general practice of medicine or nursing. It is a solemn obligation for specialists in these fields. Others with somewhat lighter responsibilities are the members of associated specialties such as the anesthesiologists, dietitians, hospital administrators, pathologists, and social workers.

In Chicago the challenge has been met in a rather satisfactory manner by the creation of a Joint Committee that co-operates with the Chicago Board of Health. The Suburban Cook County Maternal Welfare Committee, serves Cook County outside of Chicago, in collaboration with the Cook County Department of Public Health. To deal with statewide problems, we have the Illinois Committee on Maternal Welfare, the Illinois Obstetrical and Gynecological Society, and the Illinois State Medical Society's Maternal Welfare Committee.

These are voluntary committees, composed of dedicated men and women. They know the facts and needs in our state and want to support any reasonable plan to make it the safest place in the United States to have a baby or to be born.

A careful analysis is made of the facts sur-

rounding the death of every woman who is pregnant or has been pregnant within three months. The data are assembled by trained individuals who are appointed by these committees for this purpose. Out of these studies by men thoroughly acquainted with the problems concerned with these deaths come suggestions for formulating wise rules and regulations of the practice of obstetrics in our state to the end that mistakes that have been made in the past will be rectified. Weak points in our defense will be sought and corrected. By teamwork between the various disciplines involved in maternal care, a wholesome respect for the help of other groups in solving our maternal welfare problems will continue to grow and become the rule by which we operate.

In February of 1957 a Congress sponsored by the Illinois Committee on Maternal Welfare was held in Springfield to which were invited all physicians, nurses, public health personnel engaged in maternal and newborn care, hospital administrators, anesthesiologists, dietitians, and others serving maternity problems. An attendance of two or three hundred was anticipated and 1,200 registered. A year later a similar meeting in Peoria was attended by 1,500. These are the largest meetings of this nature ever held in any state. Representatives from many other states attended and were impressed by what they saw and heard at the meetings. Two days were devoted to the presentation of panel discussions,

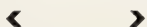
round tables, lectures, and demonstrations and equal prominence was given to the viewpoints of the general practitioner, the specialist, the nurse, and social service personnel. Some of the leaders in each of these disciplines participated actively in the programs. The generalists as well as the specialists were assigned to places on the panels, which did much to stress the practical care of the patients, pre and immediately postpartum.

It is to be hoped that these meetings will become more and more popular as their significance is appreciated by those in attendance; that more and more people will avail themselves of the stimulating experience provided to the participants in the programs, and that they will carry back to their institutions inspiration to provide the safest and best obstetrical care possible with the facilities available.

It would seem that with proper presentation to lay groups by these committees that financial aid would be forthcoming for improved equipment and operating facilities for maternity departments into which our daughters and wives must go for definitive care. That such planning will result in better obstetrics is shown by the fact that a much less ambitious plan over the past 30 or 40 years has reduced maternal mortality from 7 per 10,000 to .23. Downstate Illinois has kept pace with Chicago and its record in maternal mortality is just a shade better.

We have a great opportunity to bolster public confidence in the medical profession by implementing and improving the plans we have in operation. What could be more important to this country than future citizens? If this is worth doing, let's do it.

Frederick H. Falls, M.D.



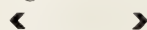
Postmedical education

It is a truism that the education of the physician does not end when he finishes medical school. There is no dearth of educational media but there is too little time to take advantage of all the competing material offered. Physicians are faced with mounds of medical journals, and are urged to attend meetings and postgraduate courses. They are haunted by so many detail men, claims have been made that most of their postgraduate education stems from this source.

The use of discs and tape recordings is growing in popularity in certain areas. These records

are prepared by medical societies and schools to keep physicians in out of the way places informed on new processes and treatments.

This plan has met with mixed reactions. Some medical men are enthusiastic; others, critical. The recordings are welcomed most by those who learn best when listening to the spoken word in the privacy of their homes or office, away from smoke filled crowded convention halls. The practical aspect must be considered because discs and tape recordings require considerable preparation, are expensive, and need full time help to maintain. There ought to be a definite demand for this means of communication before large scale production begins.



Let him not die in vain

Many a physician takes a greater chance of losing his life when he makes an emergency night call on a strange patient than does the patient who calls a strange physician. Police records over the years show that many physicians have been robbed or injured, and a few have been killed after being summoned by a phone call in the middle of the night.

This occupational hazard of the medical profession was emphasized recently when Charles Kubala's attorney petitioned the parole board to commute the sentence. The hearing is now set for Jan. 13, 1959. Kubala is one of three youthful gunmen who killed Dr. Bernard F. Garnitz more than 33 years ago. The hoodlum was a member of a gang that made a habit of calling physicians at night and robbing those who responded. The shooting of Dr. Garnitz brought an end to their gangster activities.

At the time of the trial, Assistant State's Attorney Charles S. Dougherty asked for the death penalty because he was concerned with the safety and security of the 4,000,000 citizens living in Chicagoland at that time.

Judge Benjamin P. Epstein made the following statement: "The court by reason of the youth of two of the defendants and having in mind the plea of guilty is reluctant to impose the death penalty. To impose a life sentence would make it possible for defendants to become eligible for parole at the end of 20 years and thus create a possibility of their return to society at an age when by reason of their malignant hearts, they might again become a menace to society.

"To avoid this contingency, and in order that

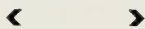
society may forever and with a certainty be protected against the menace of their earthly existence it is the judgment and sentence of this court that they be sentenced for 100 years each in the penitentiary."

This penalty does not allow a pardon or parole board to cut the sentence below 33-1/3 years. The defendant Kubala is now in his fifties but we have no assurance that he has developed enough moral fitness to be set free.

Many physicians are willing to take the risk of making night calls on strangers but they become suspicious when criminals are active in the neighborhood. Some refuse to make the call; others will do so provided a police escort is available.

These attitudes are not in the best interest of medical practice. They create a hardship on the stranger who is really ill and in need of prompt attention. This is one reason why the safety of the layman as well as the physician, will be jeopardized should the parole board free a criminal who is not yet ready to take his place in society. The common good demands that physicians should feel free to make night emergency calls on the sick or the dying.

Physicians in the state wishing to give expression to their opinions may write to Parole and Pardon Board, Armory Building, Springfield, Illinois in re: Petition for Executive Clemency — Charles Kubala, No. 17725.



Nutrition conference considers food problems

About 200 physicians and laymen interested in food problems attended a nutrition conference in Urbana, Ill., October 4, sponsored jointly by the Committee on Nutrition of the Illinois State Medical Society and the Illinois Nutrition Committee.

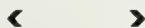
The meeting was held in Bevier Hall of the University of Illinois. Dr. Paul A. Dailey of Carrollton, chairman of the ISMS Committee on Nutrition, presided at the afternoon session, and Miss Geraldine Acker of Urbana, chairman of the Illinois Nutrition Committee, at the morning meeting.

Dr. J. B. Youmans, formerly of the Vanderbilt University College of Medicine, spoke on "Sodium and Hypertension." Other speakers were B. S. Schweigert, Ph.D., of Chicago, director of

research and education, American Meat Institute Foundation, and Herbert H. Alp of Chicago, director of market development for the American Farm Bureau Federation.

A panel discussed "Teamwork for Better Nutrition." The participants were Dr. Harlan English of Danville, councilor of the ISMS; Miss Harriet Barto, associate professor of dietetics, University of Illinois; Miss Beulah Hunzicker, associate professor of foods, University of Illinois; and Mrs. Anna May Wilson of Winnetka, writer on nutrition. Dr. Youmans presided.

Other members of the Nutrition Committee present were Drs. Harry Mantz, Alton; Grover C. Otrich, Belleville; Warner H. Newcomb, Jacksonville; James R. Wilson, Winnetka; and W. I. Taylor, Canton; also John Miller, Ph. D., Chicago.



Effingham county plan raises funds for AMEF

The Effingham County Medical Society has a novel plan for raising money for the American Medical Education Foundation. If adopted nationally, it would go a long way toward solving the financial problems of medical schools.

Details of this plan came out when inquiry was made concerning how a society with about 25 members, including emeritus, could make a recent contribution of \$500 to the foundation. This is in addition to the \$20 for every dues paying member of the Illinois State Medical Society, allocated by the state society to the foundation.

The plan is simple. The money is obtained from physician's services given by county society members in administering immunization and physical examinations in schools.

Parents pay nominal fees to the Parent-Teachers Association. The PTA turns the money over to the Effingham County Medical Society. The \$500 contribution came from that source. In addition, there was a balance which the county medical society will use for other purposes, including postgraduate courses and purchase of hospital equipment.

If this plan were to be applied nationally, the AMEF would be benefited to the extent of about \$3 million a year.

The members of the Effingham County Medical Society are to be congratulated on their public-

spirited attitude and interest in medical education. The PTA is to be praised for its co-operation in the movement.

Perhaps other county societies would like to follow suit. An inquiry to Dr. John J. Devitt, 109 South Third St., Effingham, secretary of the Effingham County Medical Society, will bring details.

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Medical writers group honors associate editor of I.M.J.

Dr. Theodore R. Van Dellen, associate editor of the *Illinois Medical Journal* and health editor of the *Chicago Tribune*, was given the



Chicago Tribune photo

Dr. Charles E. Lyght (left) presenting American Medical Writers' Association distinguished service award to Dr. Theodore R. Van Dellen, associate editor of the *Illinois Medical Journal*.

distinguished service award of the American Medical Writers' Association at the group's recent annual meeting in Chicago.

This signal recognition by co-workers in the medical writing field was based on Dr. Van Dellen's "unusual and distinguished service to the medical profession" as an educator and writer.

The citation included the statement: "Your daily health column in the *Chicago Tribune* and New York News Syndicate has provided information on scientific progress and sound advice on troublesome individual problems to untold thousands of readers."

"Ted," as he is generally called by his host of friends in and out of the medical profession,

also is assistant dean and associate professor of medicine at Northwestern University Medical School.

Honored at the same time "for distinguished contributions to medical literature" was Dr. Charles M. Mayo of Rochester, Minn.

H. M. C.

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St. Clair county honors Dr. Grover C. Otrich

The St. Clair County Medical Society, at its October meeting, paid tribute to Dr. Grover Cleveland Otrich of Belleville upon the attainment of his 50 years of service as a physician.

Dr. Otrich, since his graduation from the University of Illinois College of Medicine in 1908, has been an active figure in professional organizations. Among the offices he has held are: AMA delegate for six years; Illinois State Medical Society councilor for 11; secretary of the Belleville branch of the St. Clair County Medical Society for 23; and president of the American Academy of Otolaryngology.

He is keenly interested in nutrition problems and presently is a member of the Nutrition Committee of the Illinois State Medical Society. He served as chairman of the committee for four years.

Aside from his professional services to his community, Dr. Otrich has been active in civic organizations. He is serving in several capacities in his Chamber of Commerce and is a charter member and past president of Rotary. He is a 50-year Mason. He was an Army captain in World War I.

Dr. Otrich and his wife reside in Belleville, but they have a farm in Southern Illinois to complement their full life.

The *Illinois Medical Journal* joins in congratulations to a hard worker in the medical profession.

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Military retirement of Major General Paul I. Robinson

On September 1, Dr. Paul I. Robinson became coordinator of medical relations for the Metropolitan Life Insurance Company, with headquarters in New York City. Dr. Robinson, a native of Mt. Vernon, Illinois, was graduated from Washington University Medical School, St. Louis, in 1928. Soon thereafter, he entered military serv-

ice as an officer in the Medical Corps. During World War II, he served in the European Theater, studying the problems of redeployment of medical personnel and material. In 1945, he was deputy chief surgeon, Headquarters U. S. Army Forces, Far East. In 1947, he served a third tour of duty in the Surgeon General's office as chief of the personnel division.

Dr. Robinson has been awarded the Legion of Merit, with Oak Leaf Cluster; the Philippine Military Medal of Merit; the Republic of Korea Order Military Merit Taiguk; and numerous defense, liberation, and other ribbons. Among his important assignments have been the command of three of the army's largest hospitals—Fitzsimons in Denver; Madigan in Tacoma; and Letterman in San Francisco. He is best known throughout the nation for his organization and administration of the Office for Dependents' Medical Care (Medicare) in the office of the Surgeon General of the U. S. Army, to which position he was appointed by the Secretary of Defense in December, 1956.

Dr. Robinson, by choice, has remained a citizen of Illinois. His hundreds of friends in the ISMS wish him success in his new work.

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An apology

In the September issue of our Journal, the first article "Suicidal Poisoning" was credited to Frank G. Norbury instead of Frank B. Norbury.

Signing death certificates

Dr. Herman N. Bundesen, president, Board of Health, Chicago, sent the following letter to hospitals relative to the signing of death certificates:

"It has recently been brought to the attention of the Chicago Board of Health that persons other than duly licensed physicians may have been signing medical certificates of death. May I take this opportunity in a spirit of co-operation to call your attention to the provisions as set forth in Section 93-10 of the Municipal Code of the City of Chicago, which states in part as follows:

'——— Such death certificate shall be signed by a duly licensed physician who attended the deceased during his last illness, or by the coroner of Cook County . . .'

"We have been advised by the Department of Law of the City of Chicago that the aforementioned Section of the Municipal Code would prohibit interns and residents from signing medical certificates of death, unless such individuals are duly licensed physicians.

Very truly yours,
(signed) HERMAN N. BUNDESEN, M. D."

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Medicine on postage stamps

Among recent issues of postage stamps dealing with the medical profession were the following: Czechoslovakia—A three-stamp set for Brno

PREPARATION OF MANUSCRIPTS FOR THE ILLINOIS MEDICAL JOURNAL

Exclusive Publication: Articles are accepted for publication on condition that they are contributed solely to this Journal. Publication elsewhere will be subsequently authorized at the direction of the Editorial Board.

Correspondence: Address all correspondence relating to publication of scientific papers to the Editor, Harold M. Camp, M.D., 224 S. Main St., Monmouth, Illinois.

Manuscript: Type double spaced, on white paper, 8½ by 11 with one inch margins at the top, bottom, and right, and 1½ inches on the left. Submit the original and one carbon copy. Use the metric system throughout. Call drugs by the generic names. The trade names can be added, in parentheses, if they are considered important.

Footnotes and References: Use the style of the *Quarterly Cumulative Index Medicus* published by the American Medical Association, which requires, in the order given: name of

author, title of article, name of periodical, with volume, pages, month—day of month if weekly—and year as follows:

2. Beck, C. A.: The Time is Right, Illinois M.J. 114:255-258 (Dec.) 1958.

And, include only those references specifically referred to in the text.

Reprints: An order slip for reprints with a table covering cost will be sent at time of publication to each contributor.

Illustrations: Place the name of the author on the back of each illustration, table, etc. Submit clear and distinct glossy photographs. Make drawings in black ink on white paper. Attach slip of paper to the back of the illustration with the author's name, and identification of article. Captions should be on a separate page and be a part of the manuscript. Photographs and drawings will be returned if so requested.

Society members throughout the state are encouraged to write up their interesting cases and submit them for publication. The editors welcome the opportunity of helping you prepare your article for the printer.

Exhibition included one picturing the Children's Hospital at Brno.

Japan—A 10 yen stamp, issued in connection with the 5th International Congress on Diseases of the Chest and the 7th International Congress of Bronchoesophagology, showed a stethoscope.

Netherlands New Guinea—Four new stamps had surcharges for the benefit of the Red Cross.

New Zealand—The two 1958 health stamps had 1d surcharges for the benefit of the Health Camp Fund.

Peru—A set of four stamps commemorated the 100th anniversary of the birth of Daniel A. Carrión, considered a martyr to Peruvian medicine since he died after inoculating himself with the wart organism. He was shown on one stamp. Another pictured Jose Hipolito Unanue, father

of Peruvian medicine; and a third, the facade of the first Royal School of Medicine and Surgery at San Fernando (1811).

Philippines—All mail between August 19 and September 30 had to carry a new 5c or 10c semi-postal stamp, each with a surcharge of 5c for the benefit of the anti-tuberculosis campaign. The stamps pictured the main hospital building of the Quezon Institute.

Portugal—Two stamps commemorated the 6th International Congress of Tropical Medicine and Paludism in September. They featured the headquarters of the Tropical Medicine Institute, Lisbon, and the emblem of the congress.

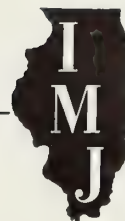
Turkey—Three stamps featured a medallion portrait of Florence Nightingale. They bore the Red Crescent, symbol of the Moslem equivalent of the Red Cross.



Abuse of Orinase

The new antidiabetic drugs do not directly help the body to burn sugar as does insulin. We have found in our research at the Brooklyn Hospital that these drugs have their effect directly on the liver. They lower blood sugar by blocking the output into the blood stream of the glucose stored in the liver. When sugar is absorbed from the intestinal tract, it goes directly to the liver where it is stored up and metered out into the circulation only as the body needs it. In the diabetic out of control, or in the dog made diabetic by depriving him of his pancreas, this sugar is not held back by the liver but goes directly through into the blood stream as it would through a tin horn. New drugs merely block the exit of the sugar into the blood stream, again allowing it to be metered out as the body needs it. As the tissues use the sugar it is taken from the stores in the liver.

In many cases, the drugs are being abused at present. If the diabetic patient is obese and does not restrict his diet but depends merely on this blockading of the liver by the use of one of these drugs, he is fooling only himself. The strain of obesity alone will continue to burden and wear out his pancreas. His diabetes later will become severe. He actually has been powdering a dirty face rather than washing it. He thinks that just because the drug is lowering his fasting blood sugar it is doing a good job in the treatment of his diabetes. This is a fine way to have the sneak thief, diabetes, steal the rest of his pancreas and ultimately make him an insulin cripple. One must realize that these new drugs function in the body only by virtue of the presence of insulin in that body. *George E. Anderson, M.D. Oral "Substitutes" for Insulin. New York J. Med. Jan. 15, 1958.*



Managing Your Money—Part Two

The young physician who has money in the bank, sufficient cash reserves to meet his needs, a full insurance program, and no debts, can consider the problem of investments.

The most important step in an investment program is to establish your goal firmly in mind. Since as a physician your main objective is to be a good practitioner and help people enjoy the blessings of health, the accumulation of money must never become unduly important. However, your own basic needs plus those of your family and the realization that you must provide for your retirement and old age compel you to give serious thought to this problem.

A simplification of the problem is to continue to save money by living within your income, avoiding serious debt, and adding gradually to the cash reserves. Cash reserves are known as defensive investments. Cash is always ready and available for use. Government bonds may be cashed at a moment's notice. Bank savings as well as savings and loan association accounts may be withdrawn in minimum time. The purpose of such savings is to keep the principal intact and readily available for use. Interest received on this money is necessarily small. However, it is continuous and over the years may enlarge to excellent proportions. Your banker can show you tables demonstrating the exact increase you may expect.

Yet it is impossible to save large sums, due to

high income tax rates. Moreover, there is a grave danger that inflation will dilute the ultimate value of savings. Accordingly, a defensive investment program does not completely answer the needs. A physician in good health and in active practice rarely concerns himself with the problem of economic inflation. Rightly so, since during boom times his patients will be able to pay their bills. The public will keep up their medical insurance programs and fees can be adjusted to the increased cost of living. The danger of becoming ill and becoming unable to continue active practice increase with age or the savings plan, that may have been adequate years ago, is not sufficient to pay for his children's education today. What of tomorrow? Yes, it is important to have a knowledge of inflationary tendencies in our economy and how to combat them.

In our American economy, the ownership of common stocks is the finest protection against inflation. In essence, boom times stimulate the demand for the necessities of life as well as the luxuries beyond the available supply. Since man's needs are never completely satisfied, every depression or recession is followed by a sudden craving for the finer things of life. New inventions and new ideas intrigue the imagination. Eventually a new house or a remodeled older home is needed. The old car becomes unusable. Clothes wear out, and Mrs. Jones has a new fur coat, and the children get hungry every four

hours. The corporations that manufacture the necessities must get raw materials, tool up, expand, and produce. This means higher salaries for the workers, who can then buy the finished goods, and large profits for those who own the corporations.

As a common stockholder, you own a share of the company whose stock you purchase. As such, you share in the profits earned. When there are no profits, you receive no dividends; if the company fails to prosper, your investment may prove worthless. This may happen when the corporation has borrowed money to build its plants, to expand, or advertise. If the corporation cannot earn sufficient income to pay interest on the borrowed money, be it bank loans or bonds, the bondholders may take over the corporation and sell the assets. If these are not large enough to completely repay the borrowed money, the common stockholders are out of luck. In considering an investment in common stocks of a corporation, you must study that company not only from the standpoint of what may be realized in the way of profits but what can be lost in the absence of profits.

An investment survey of common stocks demands time and study. Because Dr. X is a relative of the third vice-president, or because one of his patients is one of the big brass in the corporation, does not qualify him as an expert in investments. Even if a physician is engaged by such an organization this does not mean that he can forecast its prospects for earning profits. To obtain information necessary to proper investment, he must go to the proper sources. To invest on the advice of a friend or one seemingly in the know is similar to advice on medical care as rendered by a hospital orderly or telephone operator.

The first scientific exploration into common stock would be to study the past history of the corporation. Just as the history is so important in a medical diagnosis, so is it in a financial one. Standard and Poor's and Moody's Reports are the encyclopedias of the investment business. These journals, published annually, present the entire facts on every corporation owned by public stockholders (not family stockholders). The names of the officers, directors, locations of plants, and subsidiaries are presented. A complete financial background is available in black and white on an annual report basis. What the

company has done during good times and bad is there for all to see. The market's evaluation of the stock is listed, as are the exact earnings record and dividend policy. The amount of money devoted to research may be noted and the effectiveness of this research on future earnings is there for study.

But now the complications begin. What companies to study and in what industries? How much to pay for the stock? Is it priced adequately, based on present and possible future earnings? How much to invest? When should the investment be made?

The busy physician does not have the time it takes to conduct such an independent survey nor to study the changing financial picture daily. Some people combine this study and investment procedure with the practice of medicine. To such individuals investments become a major hobby similar to photography, golf, fishing, boating, or music. Fine and good for such people. But for the average man, would it not be better to spend our meager spare time reading medical journals and attending scientific discussions rather than obtaining information on investments? Certainly, it would be utterly ruinous from the financial standpoint to neglect the prime source of income, our practice.

Many years ago, investment counselors realized there was a need for counseling among professional people. At first this took place merely through the formation of investment counseling organizations. For a set fee, such groups or individuals would advise as to investments and scrutinize the portfolio on a day to day basis. The physician continues to manage his own affairs, merely using the counselors for advice. Since such an arrangement still demands time and action on the part of the physician, it is not suitable for too many members of our profession. Banks have established trust departments which will supervise individual investments. These may be placed in a separate fund or in a common fund with others. This is a conservative and sound method of investing. The employees in the trust department of a bank are carefully selected for their ability and conservatism. The return will not be spectacular, but usually will be steady and sure. See your banker if such a method appeals to you.

Next in the attempt to help a professional man

in his investments came the formation of investment corporations. Such corporations as the Tri-Continental Corporation and the Lehmann Corporation, to name only two, do not manufacture or sell any product. They use the money invested in their company to buy stocks and bonds of other corporations. Their profits are based on income received as interest and dividends plus income from the sale of such securities bought low and sold high. Information on such companies is readily available from any broker and their annual reports and complete financial backgrounds can be studied via the usual financial channels. Study of the prospectus and annual reports is not time consuming. The nature of the investment policy of these companies and their dividend policy is readily evident, as is their ability to respond to inflationary pressures and those of deflation on a historical basis.

Such investment companies are known as "closed end" ones. This distinction is based on the fact that the outstanding stock of the company has been issued. When you buy stock of such a corporation, you do not buy from the corporation itself but from some stockholder who wishes to sell his stock. This is done through a broker who receives a commission. The price depends upon the value of the assets owned by the corporation, its present income, its future prospects, and the value set by individuals wishing to buy and those wishing to sell. At times the price may be undervalued, and at other overvalued. Careful study before buying is a necessity to avoid paying too great a price.

Because of this, the "open end" investment companies were formed. These are known as mutual funds. When you buy shares in such a fund, you pay directly to the fund itself. The officers of the fund then invest this in a manner particular to the stated policy of the fund. The value of the fund is in direct line with the value of the investments made. If the officers took your money and invested it entirely in corporation ABC, the value of your investment would be in direct proportion to the value of corporation ABC. Similarly, if the officers invest in corporations A, B, and C, or in 100 or more companies, the value of your investment in the fund would be equal to the total of the assets of the investments your fund has made.

Certainly, you pay for the management of

these funds. When you invest, a sales charge is assessed. This is usually about $7\frac{1}{2}\%$, but is usually less on large sums of money. The income of the fund is from dividends and interest plus capital gains from securities sold. From this gross income, the fund deducts its cost of operation. The remainder is then distributed to the shareholders as income dividends and capital gains dividends.

Most mutual funds have a policy whereby income from dividends and capital gains may be used to purchase additional shares of stock in the fund. This is done in a simple manner by authorizing the officers to so proceed. This additional stock is purchased at low cost and is an excellent way to increase assets for future use.

Mutual funds are carefully regulated by the Securities and Exchange Commission and report regularly to their stockholders. Their asset value is listed in the daily newspapers similar to the market quotations of all major corporations. There are over 200 major investment companies in this field. The most common are the balanced funds.

Balanced mutual funds, as stated in their prospectus, divide their investments between bonds, preferred stocks, and common stocks. They have available cash and short term government securities. The bonds usually are divided into government, municipal, industrial, utility, and railroad bonds. The preferred and common stocks are various industrial, railroad, and utility concerns. The purpose here is to invest in both defensive and growth securities. A set basic income is provided that will stand up in all except a possible major panic, yet give an investment in the common stocks of many diversified corporations with prospects of growth and tremendous profits. Balanced funds are attractive to the investor who prefers stability of income, a reasonable assurance of safeguarding his principal, and a desire to increase his assets. Investing in such funds affords a simple means of diversifying and of obtaining good management. The portfolios of such funds compare favorably with those of experienced wealthy investors, large pension funds, and insurance companies. It is a simple means of establishing a sound investment in American economy.

A large group of mutual funds are known as balanced common stock funds. Here the entire

investment is in common stocks. The portfolio is varied so that all major groups are represented. In the industrial group are aircraft manufacturers, airlines, electronic and electrical companies, motors and auto parts manufacturers, mining companies, various metal producing organizations, retail and food stores, drug manufacturers, and many other such groups. The fund usually invests in several companies within the industrial divisions. The law requires the fund to state its policy of investment and adhere to it. The fund cannot invest too greatly in any one company, thus can never gain control.

Other funds have a stated purpose of investing in a specific industry for example, the Chemical Fund, television-electronics funds, and the jet missile fund. Group security funds are divided into separate investment companies and own stocks in motors, oils, chemicals, utilities, and the like. Here again is an opportunity of obtaining a diversified investment in many corporations pertaining to one industry. Should you as a physician wish to invest in stocks of the major pharmaceutical companies, you could do it in

this manner by finding a fund having its major investments in such corporations.

Perhaps you are interested only in income at the moment. Funds have been created to your taste. Their investment program is in large, well regulated concerns that provide a steady rate of return. Maybe you are more speculative and wish to invest, not for income, but for possibilities of great growth in assets. Funds have been organized for you too. In fact, there are at least two or three funds to satisfy every investment purpose. Mutual funds have been labeled "the modern way of investing." A. Weisenberger has published a book with such a title, and the annual Weisenberger review on mutual funds is the bible of the industry. Barron's Weekly and Forbes' magazine publish factual information on the funds at regular intervals.

Your broker can give you information concerning mutual funds, both "open end" and "closed." Your broker is an excellent individual to contact on this and all manner of investments. So is your banker. The proper selection of such individuals is most important to your financial welfare.

J. R. W.



L—Glutavite

A controlled trial of L-Glutavite, a nutritional supplement containing monosodium-L-Glutamate and large amounts of niacin, was conducted on 30 geriatric patients with chronic brain syndrome at Osawatomie State Hospital. It largely confirmed the results obtained with this preparation at other institutions. Serial observations demonstrated that L-Glutavite had a markedly favorable effect upon such factors as alertness, orientation, interpersonal relationships, and interest in occupational and recreational activities. It served to decrease severity and frequency of stupor, con-

fusion, and verbal incoherence. It did not, on the other hand, exert a significant effect on memory, judgment, thought processes, or thought content in patients suffering from chronic arteriosclerotic brain syndrome. Side effects were infrequent, mild, and transient in character, disappearing promptly with reduction in or cessation of dosage. It would appear that L-Glutavite can be considered a useful drug in the field of geriatrics, and it is specifically indicated in cases of chronic senile or arteriosclerotic brain syndrome. *K. Wolff, M.D. L-Glutavite. Clinical Effect on Geriatric Patients in a Psychiatric Hospital. J. Kansas M. Soc. July 1958.*

CORRESPONDENCE



AMA clinical meeting to attract 3,000

More than 3,000 physicians are expected to attend the American Medical Association's 12th clinical meeting in Minneapolis, December 2-5.

Designed to help the family physician solve his daily practice problems, the meeting has been planned in co-operation with Minneapolis physicians. The general chairman of the meeting is Dr. O. L. Norman Nelson, Minneapolis, president of the Hennepin County Medical Society. Dr. N. L. Gault, Jr., Minneapolis, is the scientific program chairman.

The scientific portion of the program will be held in the Minneapolis Auditorium. The House of Delegates will meet at the Leamington Hotel.

There will be 100 scientific exhibits. Among these will be exhibits on medical history in Minnesota, including information about Indian medicine and the Mayo Clinic. There will be approximately 130 technical exhibits also. About 200 physicians will participate in lectures, symposiums, and panel discussions on such subjects as neurology and psychiatry, cardiovascular disease, arthritis, orthopedics, and various other medical topics. Approximately 35 medical motion pictures will be shown.

A special feature will be a symposium on proctology. Another special feature will be a trans-Atlantic conference between AMA members in Minneapolis and British Medical Association members in Southampton, England. A closed circuit colored television program will cover such topics as cardiac by-pass, neurology, orthopedic

problems of the extremities, and cesarean section.

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Offer pediatric grants

Wyeth Laboratories in 1959 will award 20 two-year fellowship grants, each carrying an annual stipend of \$2,400, for postgraduate pediatric studies.

Candidates must be citizens of the United States or Canada, and may include interns, physicians who recently have completed their internship, military service, or a U.S. Public Health Service tour, and research fellows.

Applications must be submitted by November 28. Blanks may be obtained from Dr. Philip S. Barba, University of Pennsylvania School of Medicine, Philadelphia.

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General practice review

The University of Colorado Medical Center will hold its fifth annual postgraduate course, a general practice review, in Denver, January 19-24. The course will cover medicine, pediatrics, surgery, psychiatry, obstetrics and gynecology, trauma, and dermatology.

Information may be had by writing to Postgraduate Medical Education, University of Colorado Medical Center, 4200 East Ninth Avenue, Denver 20.

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WMA offers repository for medical credentials

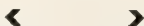
The World Medical Association has established a central repository for medical credentials.

During war and national uprisings, medical

records often are lost or destroyed. As a result, many physicians have difficulty in proving themselves medically trained and fully accredited to practice medicine.

In the United States, the lifetime cost of the service on a one payment basis to the newly graduated physician is about \$60. An actuarial schedule has been established for various age groups, as well as a 10-year service rate.

Information may be obtained from the World Medical Association, 10 Columbus Circle, New York 19.

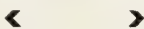


Names advisory committee to psychiatric institute

Dr. Otto L. Bettag, director of the Illinois Department of Public Welfare, announced the appointment of an Advisory Committee to the Illinois State Psychiatric Institute consisting of Drs. Francis Gerty, University of Illinois, chairman; C. Knight Aldrich, University of Chicago; Ben Boshes, Northwestern University, secretary; H. H. Gardner, Chicago Medical College; Roy Grinker, Psychosomatic Institute, vice chairman; John Madden, Loyola University; and Gerhart Piers, Chicago Psychoanalytic Institute.

The advisory committee has approved the following appointments: Drs. Lester Rudy, superintendent; Percival Bailey, director of research; and Jules Masserman, director of education.

Those interested in staff appointments, residencies, or other training may obtain information from Dr. Rudy, Institute for Juvenile Research, 907 South Wolcott Avenue, Chicago 12.



Clinics for crippled children listed for December

Eighteen clinics for Illinois' physically handicapped children have been scheduled for December by the University of Illinois, Division of Services for Crippled Children. The Division will count 12 general clinics providing diagnostic orthopedic, pediatric, speech, and hearing examination along with medical, social, and nursing service. There will be 2 special clinics for children with cardiac conditions, 2 for children with rheumatic fever, and 2 for cerebral palsied children.

Clinics are held by the Division in co-operation

with local medical and health organizations, both public and private. Clinicians are selected among private physicians who are certified Board members. Any private physician may refer to or bring to a convenient clinic any child or children for whom he may want examination or may want to receive consultative services.

December 3 — Carmi, Carmi Township Hospital

December 3 — Alton (Rheumatic Fever), Memorial Hospital

December 3 — Hinsdale, Hinsdale Sanitarium

December 3 — Rock Island (Cerebral Palsy),

Foss Home

December 5 — Chicago Heights (Cardiac), St. James Hospital

December 9 — East St. Louis, St. Mary's Hospital

December 9 — Peoria, Children's Hospital (St. Francis)

December 10 — Elgin, Sherman Hospital

December 11 — Springfield, St. John's Hospital

December 12 — Evanston, St. Francis Hospital

December 16 — Belleville, St. Elizabeth's Hospital

December 16 — Effingham (Rheumatic Fever), St. Anthony's Hospital

December 16 — Peoria, Children's Hospital (St. Francis)

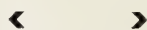
December 17 — Chicago Heights (General), St. James Hospital

December 17 — Springfield (Cerebral Palsy), Memorial Hospital

December 18 — Bloomington A.M. (General), P.M. (Cerebral Palsy), St. Joseph's Hospital

December 18 — Elmhurst (Cardiac), Memorial Hospital of DuPage Co.

December 18 — Rockford, St. Anthony's Hospital



Goiter research award

The American Goiter Association again offers the Van Meter Prize Award of \$300 and two honorable mentions for the best essays concerning original work, either clinical or research, on problems related to the thyroid gland. Manuscripts must be submitted by January 15.

Further information may be obtained from Dr. John C. McClintock, 149½ Washington Avenue, Albany 10.

Kenny Foundation grants

The Sister Elizabeth Kenny Foundation announced a continuation of its postdoctoral scholarships in neuromuscular diseases. Candidates from medical schools in the United States and Canada are eligible for five-year grants with yearly stipends ranging from \$5,000 to \$7,000.

Information may be obtained from Dr. E. J. Huenekens, medical director, Sister Elizabeth Kenny Foundation, Inc., 2400 Foshay Tower, Minneapolis 2.

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O. & G. board examinations

Part I examinations of the American Board of Obstetrics and Gynecology will be held in various parts of the United States and Canada, January 16. Eligible candidates must submit their abstracts within 30 days of notification of eligibility.

A bulletin outlining requirements may be obtained from Dr. Robert L. Faulkner, American Board of Obstetrics and Gynecology, 2105 Adelbert Road, Cleveland 6.

Chest physicians to meet

The American College of Chest Physicians will hold an interim session in Rochester, Minn., November 29-30.

The College will hold its 25th annual meeting (silver anniversary) in Atlantic City, June 3-7, 1959.

For information, write to the American College of Chest Physicians, 112 East Chestnut Street, Chicago, 11.

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Symposium on tuberculosis

An international symposium on tuberculosis, sponsored by the Deborah Sanatorium and Hospital, Browns Mill, N. J., will be held in the Bellevue-Stratford Hotel, Philadelphia, November 20-22.

The symposium will summarize recent gains in diagnosis, treatment, and control of tuberculosis. Six panels will be presented, with nearly 50 recognized authorities in the field as participants.

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Food for thought

It is a strange commentary that almost everyone, including the physician himself, is convinced of the inevitability of the complete socialization of medicine. Yet, the profession is most reluctant to see this happen. Why are doctors as a group most militantly opposed to socialized medicine and nevertheless as individuals have such mental resignation to the inevitability of state medicine? A partial explanation may be that the antagonism against state medicine is lessening as a result of this growing expanding tendency of more doctors involved in group practice. This means that doctors as a class are becoming re-

conciled to accept the third party control over their practice, with its consequent curtailment of freedom, in order to enjoy the material benefits which they think accrue from group practice. If this trend persists in the not too far future undoubtedly private practice as we know it today will be a thing of the past. The stage will then be set for the consolidation of all groups into one large group efficiently managed by the state. And one may predict that by that time there will be few physicians who will mind the change for most of them will have developed into good "Organization Men." *Editorial. Are Doctors Becoming "Organization Men?" J. Oklahoma M.A. Aug. 1958.*

THE P. R. PAGE

John A. Mirt



Start drive against food faddists

Medical societies at state and county levels are being called upon by the AMA to co-operate in a nation wide educational campaign to alert the public to a billion dollar food faddist racket. The Federal Food and Drug Administration and the National Better Business Bureau will unite with the AMA in this public education program.

To aid in this campaign, the AMA has prepared a kit of materials, including: (1) a new pamphlet on food faddism, "Merchants of Menace;" (2) a reprint of a *Today's Health* article, "Let Them Eat Hay;" (3) a sample 15-minute speech on food quackery for community groups.

Also to be used in this drive against food quackery is a 27-minute dramatic film, entitled "The Medicine Man," to be offered to TV stations. A new public exhibit, "Nutrition Nonsense and False Claims," also will be made available.

The immensity of the racket was brought out at the recent AMA's PR Institute. There are some 50,000 door-to-door vendors and "health" lecturers selling a variety of worthless products to a gullible public. They are selling inexpensive and ineffective combinations of herbs, vitamins, and minerals at high prices, and are making absurd health claims. Thousands of people who depend on these worthless products are in need of medical care, and herein lies the danger of this type of vending.

The nutrition quack takes advantage of the public's concern over obesity, aging, and various ailments, both real and imaginary. It will be

up to the medical profession to educate the public to the fact that many so-called cures offered are not only worthless but potentially dangerous.

Two problems in health insurance

Two major problems face the insurance industry, it was brought out at the recent AMA's PR Institute. These are: (1) extension of coverage to senior citizens, and (2) rising costs of health insurance.

In discussing unnecessary costs, Morton Miller, New York, chairman of the Health Insurance Council, said both underwriters and medicine have a responsibility to remove them, whether they arise from abuses or ineffective uses of medical facilities.

Mr. Miller pointed out that the physician determines the quality and quantity of the patient's medical care and consequently controls the way in which health insurance as a means of financing health care works out.

The need, he said, is to acquaint the public with what health insurance can and cannot do, how much it means to everyone, and what responsibilities it places on each individual.

An important point brought out by Leo Perlis, New York, director of community services activities for the AFL-CIO, indicated the thinking of labor. Mr. Perlis said that despite the tremendous gain in extending insurance coverage, labor is not satisfied with what has been accomplished.

"The need for continuing, constant experimentation in the economic laboratories exists if we are going to make voluntary plans work," he

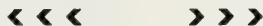
said. "We need experimentation on plans not only to provide medical and surgical care in hospitals, but home, dental, psychiatric, and nursing care."

Legislative program suggestions

The AMA's PR Institute came up with some suggestions for political and legislative campaigns:

(1) Keep a card file on every opinion leader

in your state and community; (2) get to know these leaders personally; (3) make as many friends as possible; (4) meet your public officials at the beginning of their careers; (5) work closely with congressmen and members of the state legislature; (6) keep abreast of legislative action on the national, state, and local levels and let your feelings be known on these issues; (7) be a positive member of your community and lend your support to various civic programs.



The inlet and outlet

In studying the digestive tract radiologically for peptic ulcer, inspection should begin in the esophagus where occasionally the presence of an ulcer in the distal end is missed until stricture has occurred and then it is a regrettable possibility that there might have been healing without stricture if the lesion had been discovered earlier. The cardia and fundus of the stomach also should be examined with the greatest care. Here the very early cancer is often missed and small ulcers also may escape detection. The posterior wall of the stomach throughout its entire extent is likewise an area where detection of ulcer is difficult in spite of the great help given by palpation and air contrast spot films. The pylorus has always been perplexing and remains so. Spasm, with or without ulcer and carcinoma, must be considered and differentiated when there is narrowing there and an ulcer can be definitely

diagnosed only if a crater is seen. In the first part of the duodenum, diagnosis of ulcer may be easy and definitive when there is a definite crater. With a consistent deformity of contour without crater, there is reasonable assurance that there is or has been an active ulcer with resulting deformity. More than 90 per cent of duodenal ulcers occur here in the first part of the duodenum. But when they occur in the second part of the duodenum, X-ray diagnosis is not easy. Narrowing of this segment, localized tenderness to palpation, and the occasional visualization of a crater are the best clues to the presence of this disease in this critical area, especially when these signs are combined with the exclusion of an ulcer elsewhere in a patient who clinically must have an ulcer. This area is a critical one because of the possibility of common duct involvement if there is extension of inflammation or penetration. *S. M. Jordan, M.D. Problems of Peptic Ulcer. Maryland M. J. Aug. 1958.*

AT THE EDITOR'S DESK



STATISTICS

The current picture on tuberculosis is not as rosy as we would like to believe. Last year in the United States 69,000 new active cases were reported, and nearly 14,000 deaths — more than from all other infectious diseases combined. There are 1,750,000 people living today who have had tuberculosis and need medical supervision to prevent relapses.

Syphilis has decreased by 82 per cent since 1943, and the incidence of gonorrhea has dropped 54.5 per cent since 1947. Despite these 15 years of progress, venereal disease continues to be a problem among American teenagers and young adults. More than half of the reported cases in 1956-57 were in this age group. Congenital syphilis is not being discovered or adequately treated until the victim is old enough to participate in some undertaking for which a blood test is required. More than 90 per cent of the cases of congenital syphilis reported last year were in persons 10 years of age and over.

The American farmer is rapidly catching up to the city dweller in the amount of money he spends to protect his health. In 1955, according to the Health Insurance Institute, 51 per cent of farm families had some form of health insurance. As farm incomes increased, health insurance protection tended to rise.

TENTS AND MORE TENTS

Croup tents, adult and infant face tents, and

aerosol tents are featured in the inhalation therapy catalog put out by the National Cylinder Gas Division of Chemetron Corporation. These items, manufactured by Eliot Medical Plastics, Inc. of Lynn, Mass. can be used by patients at home or on planes, trains, and other vehicles as well as in hospitals and clinics.

TOO MANY CLAIMS

There is a limit to the value of a vacuum cleaner. Literature from one manufacturer stated that by filtering the air in a home, the canister type vacuum cleaner would prevent streptococcal infections of the sinuses, lungs, and joints as well as such diseases as tuberculosis, scarlet fever, diphtheria, erysipelas, peritonitis, angina, bronchopneumonia, meningitis, pleurisy, mastoiditis, septic sore throat, arthritis, smallpox, measles, anthrax, tetanus, whooping cough, enteritis, asthma, and skin and lung diseases. The manufacturer overlooks one detail: The FDA steps into the picture whenever therapeutic claims are made and trouble is anticipated.

The FDA also entered the vibrator field recently, stating it is illegal to promote vibrator devices as weight reducers and cure-alls.

REST VERSES DRUGS

Dr. William B. Tucker, Tuberculosis Service, VA, Washington D. C. says the role of rest in tuberculosis is small in relation to that of drugs, and only slight restrictions of activity may be required. The less rest the less need for rehabilitation. Rest unconditions the patient and requires

a long period of reconditioning at a later date. In discussing single drug therapy—that is, isoniazid alone — Dr. Tucker suggests that it may be sufficient in some cases after an initial period of two drugs, and also in certain minimal tuberculous conditions. Two drugs should be used in treating cavities.

IMPROVEMENT ON BRAILLE

VA has reported the development of a new device with which the blind can read ordinary printed material. The portable unit, called an “aural reading machine,” was designed and is being evaluated by the Battelle Memorial Institute of Columbus, Ohio. The machine has three essential parts — a small instrument called a probe that is held in the hand and moved over the printed material to be read, a chassis containing transistorized oscillators and an amplifier, and earphones through which the user listens. At the present stage of development, the sounds produced by the reader do not resemble those of speech but are patterns of musical tones similar to chords played on an organ. By interpreting these tones, trained users ultimately should attain a reading speed of 15 to 30 words per minute. Advantage of the machine over Braille is that the blind user can read material in normal print, including typewritten business correspondence. The Battelle reader is about the size and shape of a portable radio, weighing nine pounds and is housed in a wooden case measuring about 7 x 9 x 8 inches with knobs for volume, light intensity, and the electric power switch.

DERMATOLOGY FOUNDATION

Another new foundation — the National Foundation for Research in Cutaneous Medicine — has been formed to support and promote research in skin diseases. Located at 370 Lexington Ave., New York, it aims to promote the advance of medical science in the field of cutaneous diseases, as well as to stimulate, support, and coordinate research experiments, tests, and studies on a broad scale. The foundation also emphasizes as a secondary objective the need for an intensive educational program geared toward the general public on the subject of skin diseases.

NEW X-RAY AMPLIFIER

The Rauland Corporation has introduced an X-ray image amplifier. It allows the physician

to view an image at least 350 times brighter than that on a fluorescent screen and reduces substantially the amount of radiation to which both patient and physician are exposed during X-ray examination. The use of a closed circuit television chain linked to the X-ray equipment is particularly desirable for large area observation of the heart and the abdominal region, permitting a medical team to view the TV screen simultaneously and work in a normally lighted room.

EXERTION AND HEART ATTACKS

Dr. Arthur M. Master, consultant cardiologist at Mount Sinai Hospital, New York, not long ago reported that only two per cent of the coronary occlusions observed in a special study could be associated with severe exertion. The percentage of attacks that occurred during sleep, rest, and mild, moderate, or severe activity coincided with the time of day usually spent under these conditions. Dr. Masters concluded that the occurrence of coronary occlusions seems to be coincidental with what the sufferer was doing when the attack occurred, and that the small percentage of attacks that happened after exertion are purely by chance.

THE DIAPER TREND

Every industry has its public relations, and the diaper service industry has much to say about their product. They reported that the surgical gauze cotton rectangle is now America's most popular baby diaper; while the contour, or hourglass, diaper is popular with mothers of petite, feminine infants. More than 4,000 hospitals in the United States use diaper services for their infant patients. The average baby requires approximately 7,410 clean diapers during the first two years. This boils down to an average of 71 diapers per week.

IS THERE A DOCTOR IN THE HOUSE?

Most physicians find they get more rest on a vacation going as Mr. instead of Dr. This is just as well because the majority leave their little black bag behind. A Chicago concern is making it tough for us by marketing a new pocket size “Doctor's Bag” — the Medikit. It contains 24 essential diagnostic instruments and medications. Many of the items are of little or no value in an emergency; such as measuring tape, skin marker, ballpoint pen, and reflex hammer.

According to Chemical and Engineering News, Fahrenheit — the 18th century scientist — put his original zero at the lowest temperature obtainable with ice and salt. A healthy body temperature was 12 degrees. The scale was later multiplied by eight so that body temperature became 96 degrees. Fahrenheit continued to experiment and showed that water froze and boiled at constant temperatures of 32 and 212 on his scale. These points became the final standards, and shifted the body temperature to 98.6.

ASTHMA HANDBOOK

The Allergy Foundation of America has added another pamphlet to its series, "Handbook for the Asthmatic," which can be obtained for 25c in coin from the Allergy Foundation of America, 801 Second Avenue, New York 17, N. Y.

Dr. William C. Beck, former Chicagoan and now at the Guthrie Clinic, reports that the simple wooden cocktail pick is an inexpensive device for removing vaginal secretions for Papanicolaou smears. The wide end of the pick is used to obtain the material from the vaginal pool. The pointed end is used in a rotating manner, to obtain material from the cervical mucocutaneous junction. The cost of these cocktail picks is about half that of tongue blades.

Protalba, Pitman Moore's new tablet containing pure crystalline protoveratrim A, is the first single alkaloid of veratrum available for hypertension.

Lilly has two new remedies, each containing V-Cillin K, potassium penicillin V. The first, for respiratory infections, is a triple layered tablet, providing a threeway therapy. One layer contains an antihistaminic, another an analgesic, and the third an antibiotic — V-Cillin K. The tablet produces therapeutic blood levels within 15 minutes, peaks at high levels in a half hour, and gives prolonged action. The second, V-Cillin K Sulfa contains triple sulfas and is said to be valuable in the prophylaxis and treatment of mixed infections of the respiratory, gastrointestinal, and urinary tracts.

Parke, Davis & Company has introduced Midical, a new sulfonamide (sulfamethoxypyridazine). The prescribed dose is only one tablet per day. This greatly reduced and less frequent dosage with minimal side effects offers convenient and economic sulfonamide therapy, according to the report.

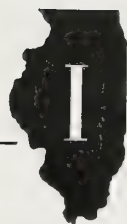
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Oral enzyme therapy

This investigation has produced experimental and clinical evidence documenting mucosal penetration, enhanced serum antithrombin activity, and impressive anti-inflammatory effects after buccally given streptokinase tablets. It appears that the buccal or sublingual route for administering streptokinase is clinically feasible. The

field of enzyme therapy now acquires a new dimension—namely, that of long-term management of subacute or chronic thrombotic or inflammatory conditions similar to those described in this investigation: chronic bronchitis, bronchiectasis, retinal-vein thrombosis, indolent leg ulcer, acne, and migratory phlebitis. *I. Innerfield, M.D. et al. Buccally Administered Streptokinase. New England J. Med. May 29, 1958.*

NEWS of the STATE



ADAMS

MEETING. DR. Eugene Lewis, Jr., professor of surgery at St. Louis University, spoke on "Diagnosis and Surgical Management of Intestinal Obstructions in the Newborn," at the October meeting of the Adams County Medical Society at Quincy.

COOK

AWARD. Dr. Arkell M. Vaughn was recipient of the 1958 Distinguished Service Award given by the Mississippi Valley Medical Society.

NEW OFFICERS. Dr. Louis B. Newman, chief of the physical medicine and rehabilitation service, VA Research Hospital, Chicago, was elected president of the American Academy of Physical Medicine and Rehabilitation, and vice president of the American Congress of Physical Medicine and Rehabilitation at the annual convention in Philadelphia. Dr. Newman is professor of physical medicine at Northwestern University Medical School.

New officers for the Chicago Society of Allergy are: Drs. Harold C. Wagner, president; Israel A. Fond, president-elect; and Bert B. Schoenkerman, secretary-treasurer.

VA. Dr. Edward F. Zimmerman, a native Chicagoan, has been appointed manager of the West Side Veterans Hospital to succeed Dr. Lee H. Schlesinger. Dr. Zimmerman joined the VA in 1931, two years after being graduated from the Loyola University School of Medicine. He

was made a diplomate of the American Board of Radiology in 1947.

MEETING. The Society of Medical History of Chicago met October 15 at the Institute of Medicine. Dr. Robert M. Kark, professor of medicine, University of Illinois spoke on "A Prospect of Richard Bright on the Centenary of his Death," and Dr. Richard K. Blaisdell, assistant professor of medicine, University of Chicago, on "History and Mystery of the Spleen."

GRANT. Dr. Saul P. Baker, assistant professor of medicine, Chicago Medical School, has received a research grant totaling \$37,490.00 from the National Heart Institute of the U. S. Public Health Service for a three-year study of heparin.

Dr. Baker will study the relationship of the blood enzyme involved in the metabolism of fats, especially in its relationship to coronary atherosclerosis, various types of liver disease, and fat or lipid metabolism in general.

FIRST LECTURE. "Staff Attitudes and Tranquilizer Prescription" was the subject discussed by Dr. Melvin Sabshin, associate director, Psychosomatic and Psychiatric Research and Training Institute, Michael Reese Hospital, as the opening lecture in Forest Hospital, Des Plaines, Sept. 25.

LECTURE SERIES. Dr. T. R. Van Dellen, associate editor of IMJ, opened the annual fall series of public lectures at the Museum of Science and Industry, September 21, with a talk on the prob-

lem of Overweight." Dr. Max Samter, associate professor of medicine at the University of Illinois College of Medicine spoke on "Allergies" September 28. Dr. Frank W. Newell, chairman of the section of ophthalmology at the University of Chicago School of Medicine lectured October 5 on "Eye Injuries in the Home," and Dr. Frederic A. Gibbs, professor of neurology in the University of Illinois College of Medicine closed the series October 12 with "Masked Forms of Epilepsy."

MISCELLANEOUS. Dr. William Meszaros, director of diagnostic radiology, Cook County Hospital, presented an exhibit on "Scleroderma" at the annual meeting of the American Roentgen Ray Society at Washington, D. C.

The first George Howell Coleman Medal of The Institute of Medicine of Chicago was presented to Dr. George Howell Coleman on Oct. 27. This honor was established as an award to a physician or kindred scientist who has rendered outstanding service to the community above and beyond the practice of his profession.

Drs. Rudolf Dreikurs, William S. Kroger, and Bertram B. Moss of Chicago were among the out of town speakers at the fifth annual meeting of the Academy of Psychosomatic Medicine in New York City. Dr. William S. Kroger is their president-elect.

Dr. Coye C. Mason, Chicago, spoke at the third annual meeting of the Michigan Association of Blood Banks held in Detroit.

Dr. James E. Cassidy has been named assistant director and chief of the medical unit of the Student Health Service of the University of Chicago.

Dr. Edgar Burns, Tulane University Medical School, and president, American Board of Urology, spoke on "Present Concept of Urologic Function and the Factors that Contribute to Urologic Training," at the October meeting of the Chicago Urological Society.

Dr. Arvid Carlsson, associate professor of pharmacology at the University of Lund, Sweden, spoke on "Pharmacology of the Catecholamines" at an October seminar sponsored by the Sigma Xi Club at Chicago Medical School.

GREENE

MEETING. The Greene County Medical Society held its October meeting in Carrollton and saw a film presentation "No. 7 Grand Rounds."

DeKALB

MEETING. Attorney Ralph Bogardus, Legal Staff, Medical Protective Company, spoke at the first fall meeting of the DeKalb County Medical Society on "Malpractice Insurance."

LAKE

PLANS. Dr. Arthur G. Baker, newly appointed Lake County health department director, outlined his plans at a recent meeting with the Lake county board of supervisors. He said the department will co-operate with highway, school, medical, and dental groups in the county.

LaSALLE

MEETING. The LaSalle County Medical Society held their October meeting at St. Joseph's Health Resort and Sanitarium, Wedron. Legislators from LaSalle County and their wives were guests. Dr. Percy E. Hopkins of Chicago, chairman of the Medical Service and Public Relations Committee and past president of the Illinois State Medical Society, spoke on the legislative aims of the society.

A talk and demonstration on "Rehabilitation and Physiotherapy" was presented by Dr. H. Worley Kendell, medical director of the Institute of Physical Medicine and Rehabilitation, Peoria.

The legislative guests were Congressman Noah Mason, Oglesby; State Senator Fred J. Hart, Streator; State Representatives Clayton C. Harbeck, Utica; Carl W. Soderstrom, Streator; and Joseph P. Stremlau, Mendota.

McDONOUGH

FALL MEETING. McDonough County Medical Society held their first fall meeting September 26, and ran the film "Disorders of the Heart Beat."

McLEAN

HONOR. Dr. Ray W. Doud of Normal was honored in the Community Profile by the Pantagraph of Bloomington recently. He has devoted much of his after office hours to Boy Scout activities and in 1957 was given the title of "Normal Citizen of the Year."

PEORIA

MEETING. The Peoria Medical Society held its

October meeting at the University Club. Dr. T. T. Myers, Mayo Clinic, spoke on "Diagnosis and Handling of Stasis Problems of the Lower Extremity."

GENERAL

MISCELLANEOUS. Two Chicago area students were cited for outstanding scholastic achievement by Northwestern University Medical School at a Founders day convocation. Philip R. McGuire of Lincolnwood received a \$50 bond as the man in Phi Rho Sigma who contributed most toward winning the award. The Roche award, given by Hoffman-LaRoche, Inc., for outstanding scholastic attainment during the sophomore year, was presented to Albert D. Newcomer of Dixon. Dr. Guy P. Youmans, chairman of the microbiology department, delivered the Founders day address.

TV. WGN-TV now has a Sunday program devoted to problems of senior citizens and their families.

LECTURES ARRANGED BY THE ILLINOIS STATE MEDICAL SOCIETY:

THOMAS F. KRUCHEK, clinical assistant in psychiatry, Stritch School of Medicine of Loyola University, addressed the Englewood Branch of the Chicago Medical Society, October 7, on "Psychiatry for the General Practitioner." ROBERT CHARLES LEVY, assistant professor of medicine, Northwestern University Medical School, addressed the Branch Society, November 4, on "Orinase in the Treatment of Diabetes." LAWRENCE H. RUBENSTEIN, clinical associate in thoracic surgery, the Chicago Medical School, will be the speaker on December 2, on "Chest Injuries in Automobile Accidents."

JEROME F. SICKLEY, LaSalle, addressed the Tazewell County Medical Society in Pekin, November 4, on a subject in hematology.

H. PAUL CARSTENS, associate in medicine, Northwestern University Medical School, addressed the Austin Kiwanis Club, November 6, on "How to Make Widows."

JULIUS ARONOW, assistant professor of pediatrics, the Chicago Medical School, addressed the Lewis School Parent Teacher Association, November 13, on "Health of the Grammar School Age Child."

ORMAND C. JULIAN, associate professor of surgery, University of Illinois College of Medicine, addressed the Kankakee County Medical Society in Kankakee, November 18, on "Indica-

tions and Results of Surgery in Arterial Disease."

DANELY P. SLAUGHTER, associate professor of surgery, University of Illinois College of Medicine, addressed a joint meeting of the Lee and Whiteside County Medical Societies in Dixon, November 20, on "Cancer of the Mouth."

JACOB E. REISCH, Councilor for the Fifth District of the Illinois State Medical Society, will address a joint meeting of the Montgomery and Macoupin County Medical Societies in Litchfield, December 3, on "The County Medical Society."

ROBERT B. RUTHERFORD, Peoria, member of the American College of Physicians, will address the Hancock County Medical Society in Carthage, December 9, on "Medical Emergencies for the General Practitioner."

PAUL C. BUCY, professor of surgery, Northwestern University Medical School, will address the Bureau County Medical Society in Princeton, December 9, on "Parkinsonism."

CHARLES I. FISHER, associate in medicine, Northwestern University Medical School, will address the "WHIMS" (Women Helpers in Mutual Sharing), December 17, on "Health of the Family."

GEORGE W. FERENZI, clinical assistant, Department of Medicine, Stritch School of Medicine of Loyola University, will address the Stock Yards Branch of the Chicago Medical Society, December 19, on "Choice of Diuretics in Treatment of Edema."

DEATHS

Carl R. Ahroon, Jr.*, Bloomington, who graduated at the University of Maryland School of Medicine and College of Physicians and Surgeons in 1932, died August 25, aged 53.

Samuel Shelhorn Allen*, Macomb, who graduated at Indiana Medical College, School of Medicine of Purdue University, in 1906, died September 19, aged 75.

Stephen Alex Allen*, retired, Freeport, who graduated at the Illinois Medical College in 1904, died August 9, aged 86, of coronary disease. He had served on the staffs of the Home Hospital and Community General Hospital in Sterling.

Julius Auerbach*, Chicago, who graduated at the Chicago College of Medicine and Surgery in 1913, died September 7, aged 75, in Sturgeon

*Indicates member of the Illinois State Medical Society.

Bay, Wisconsin, while vacationing. A Chicago physician for 45 years, he was a member of the staff of Walther Memorial Hospital.

Reuben Allen Barker*, Alton, who graduated at the University of Virginia Department of Medicine in 1917, died August 6, aged 69, of cardiovascular accident. He was associated with the Wood River Township Hospital in Wood River, St. Joseph's Hospital, and the Alton Memorial Hospital.

Walter E. Davidson*, Liberty, who graduated at Keokuk Medical College, College of Physicians and Surgeons, in 1901, died recently, aged 83.

John R. Durburg*, Chicago, who graduated at Loyola University School of Medicine in 1934, died September 15, aged 48, in Cape May, New Jersey. He was a member of the staff of St. Joseph's Hospital, and clinical instructor in obstetrics and gynecology at Stritch School of Medicine of Loyola University.

Henry Edstrom, retired, Springfield, who graduated at the University of Minnesota Medical School in 1926, died July 17, aged 58, of acute coronary occlusion and myocardial infarction. He was a member of the American College of Radiology.

Minna E. Emch*, Chicago, who graduated at the University of Illinois College of Medicine in 1929, died September 28, aged 54. She had served as associate in nervous and mental diseases at Northwestern University Medical School from 1936 to 1948; she was consultant to the Elgin State Hospital; member of the board of the Illinois Society for Mental Health; and chairman of the committee on membership and education of the Chicago Psychoanalytic Society.

Horace M. Finney*, Chicago, who graduated at the Chicago Medical School in 1926, died October 8, aged 75. For many years he had been examining physician for Chicago Typographical Union No. 16, and he had worked as a printer in various Chicago newspaper shops.

Louis J. Gazzolo*, Chicago, who graduated at the Chicago Medical School in 1945, died September 17, aged 45. He was a member of the staffs of Michael Reese and Weiss Memorial Hospitals.

Arthur Nelson McCord*, Streator, who graduated at the Chicago College of Medicine and Surgery in 1908, died July 24, aged 88, of rheumatoid arthritis. He was a member of the staff of St. Mary's Hospital, and was also a pharmacist.

Frank Tuthill Potts*, Lacon, who graduated at Rush Medical College in 1904, died in the Decatur and Macon County Hospital in Decatur, July 29, aged 82.

Roscoe Wellington Pratt, retired, Park Ridge, who graduated at the College of Physicians and Surgeons of Chicago, School of Medicine of the University of Illinois, in 1911, died in McHenry July 15, aged 68, of carcinoma of the right lung.

Carl H. Schnaer, Chicago, who graduated at Chicago College of Medicine and Surgery in 1916, died September 24 in Veterans Research Hospital. He was 73.

Charles Edward Shannon*, Chicago, who graduated at Rush Medical College in 1926, died July 18, aged 60, of coronary occlusion. He was a member of the staff at St. Luke's Hospital, and director of the medical bureau of Marshall Field & Company.

Alphonso P. Standard*, Macomb, who graduated at the University of Illinois College of Medicine in 1906, died September 11, aged 77. He was former chief of staff of the St. Francis Hospital; the first chief of staff of the new McDonough District Hospital; and co-founder of the Standard Clinic in 1918. He served two terms as president of the McDonough County Medical Society, and he was a member of the "Fifty Year Club" of the Illinois State Medical Society.

Algernon Henry Waddington, Rockford, who graduated at the Chicago College of Medicine and Surgery in 1912, died in the Rockford Memorial Hospital July 29, aged 76, of hepatoma of the liver with ruptured esophageal varices.

Carl Emil Zanger*, Chicago, who graduated at Northwestern University Medical School in 1920, died July 17, aged 63, of coronary thrombosis.

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BOOK REVIEWS



ESSENTIALS OF GYNECOLOGY. E. Stewart Taylor, M.D. \$12.00. Philadelphia, Lea & Febiger, 1958.

This textbook is designed to meet the needs of undergraduate medical students and young practitioners of gynecology. In general, it is well done and up to date. Dr. Taylor has chosen well the large number of black and white and colored drawings and illustrations. Opposite page 42 there is a beautiful illustration of the vascular supply to the pelvis and page 46 provides an excellent plate on the lateral view of the vessels and nerve supply to the pelvis.

The format is attractive, inviting to the reader, and in good taste. The amount of reference material at the end of the chapters varies from only a few to a great number. In some areas, therapy is covered all too briefly.

The section on vulvitis offers minimum attention to various headings such as diabetic vulvitis. Under vaginitis, Dr. Taylor uses the term senile rather than postmenopausal vaginitis. Both are correct, but the latter is more acceptable to the patient.

The author is up to date in references to the role of hemophilia-like organisms in infections. There is a rather brief chapter on benign conditions of the cervix. Under treatment of endometriosis, he says removal of the uterus may free the patient from all symptoms, even endometrio-

sis that involves the adnexae. This might apply if symptoms were entirely from the adenomyosis, but how can this procedure affect the course of the disease for lesions in the adnexa? Under ectopic pregnancy, he uses the words ectopic and tubal pregnancy synonymously and then describes other types of ectopic as ovarian or abdominal pregnancies.

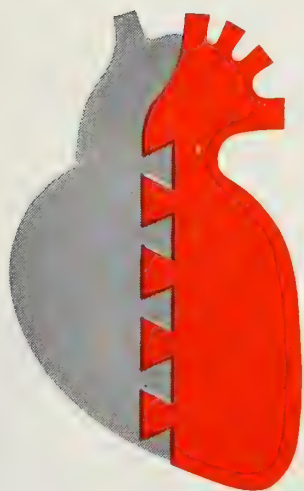
It is well known that incomplete abortions may become serious or even fatal, so far as infection is concerned without interference, but Dr. Taylor adheres to the old viewpoint of noninterference in infected abortions until the patient is afebrile, except in the presence of hemorrhage. In the description of repair of third degree tear, he stresses the approximation of the ends of the external sphincter. This raises a question of today's concepts of the role of the levator ani muscles. The amount of stress placed upon retroversion of the uterus and its relationship to clinical entities is out of proportion to the general practice. In the treatment of retrovaginal fistulas, he fails to mention the need to dilate the external sphincter after repair, to reduce gas pressure on the recently closed anus.

THE NEUROSES AND THEIR TREATMENT. Edward Podolsky, M.D. \$10.00. New York, Philosophical Library, 1958.

This readable book is composed of articles
(Continued on page 62)

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1. Friedlander, H. S.: The role of ataraxics in cardiology. *Am. J. Card.* 1:395, March 1958.

2. Shapiro, S.: Observations on the use of meprobamate in cardiovascular disorders. *Angiology* 8:504, Dec. 1957.



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BOOK REVIEWS (Continued)

written by authorities on various types of neuroses. Each article speaks for the eminence of its writer.

The neuroses are considered from several aspects. The first chapter deals in a thought provoking manner with "Anxiety in infancy — a study of its manifestations in the first year of life." This same impetus is conveyed by the other articles. A great number of pages are devoted to facts and fancies in hysteria in children. Comparative studies of individuals who, in younger years, were diagnosed as hysterical offer interesting conclusions.

The inclusion of some of the psychiatric case histories might be questionable but the author has for the greater portion handled the material wisely.

The neuroses play an important role in the emotional ills of modern life hence their diagnosis, management, treatment must be understood by every physician in active practice.

C. P. B.

CLINICAL TOXICOLOGY OF COMMERCIAL PROD-

UCTS. M. M. Gleason, R. E. Gosselin, M.D., and Harold C. Hodge. \$16.00. Baltimore, Williams & Wilkins, 1957.

This book fits in nicely with the current demand for better management of poison cases, especially among children. Its purpose "... is to assist the physician in dealing quickly and effectively with acute chemical poisonings in the home and on the farm."

Because of its size, the authors have attempted to facilitate its usefulness by using different colors for different sections. The pink pages deal with emergencies, first aid, and general emergency treatment. The blue section covers emergencies in which the ingredients are known, including an index and a therapeutic index. The yellow section deals with known ingredients and has a trade name index. The white section is used when the trade name is not known. It includes general formulations and toxicity ratings. A final section of white pages covers manufacturers' names and addresses. The yellow section comprises the greater portion of the book.

The authors state that "for every day of the year, about eight people in the United States

(Continued on page 66)

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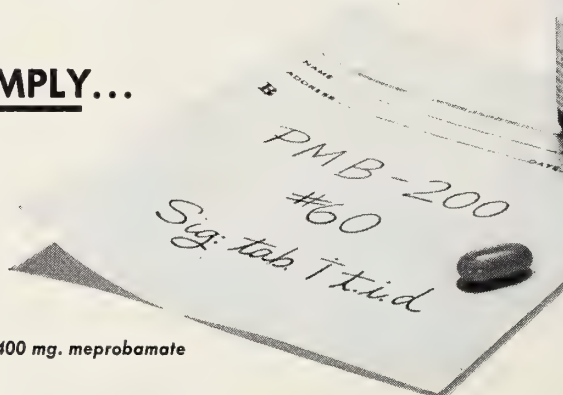
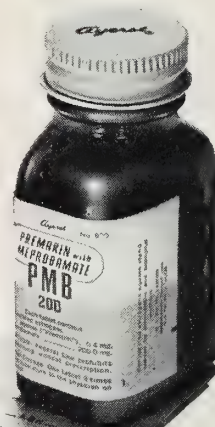
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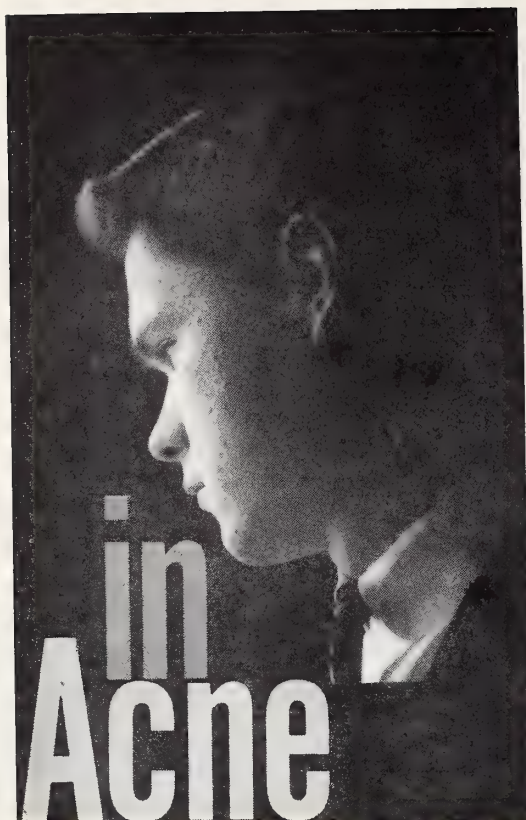
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1. Hodges, F. T.: *GP* 14:86, Nov., 1956.

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BOOK REVIEWS (Continued)

die from accidentally or intentionally swallowing some substance capable of causing death. Evidence is increasing that there are several hundreds of nonfatal cases for every fatality. The great majority of these are children between 1 and 3 years of age."

C. P. B.

BOOKS RECEIVED

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be received as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

CLINICAL ENDOCRINOLOGY. Second Edition. By Karl E. Paschkis, M. D.; Abraham E. Rakoff, M. D.; and Abraham Cantarow, M. D. 274 illustrations, 6 in full color. A. Hoeber-Harper, New York. \$18.00.

A METHOD OF ANATOMY, Descriptive and Deductive. By J. C. Boileau Grant, M. C., M. B., Ch. B., F. R. C. S. (Edin.) Professor Emeritus of Anatomy in the University of Toronto and Curator of the Anatomy Museum. Sixth edition. The Williams & Wilkins Company, Baltimore. \$11.00.

CLINICAL RADIOLOGY OF ACUTE ABDOMINAL DISORDERS. By Bernard S. Epstein, M. D., Chief, Department of Radiology, The Long Island Jewish Hospital, New Hyde Park, New York. 406 illustrations on 224 figures. 352 pages. Lea & Febiger, Philadelphia. \$15.00.

CALLANDER'S SURGICAL ANATOMY. By Barry J. Anson, M. D., Ph. D. (Med. Sc.), Chairman, Department of Anatomy, and Robert Laughlin Rea Professor, Northwestern University Medical School; and Walter G. Madlock, M. S., M. D., F. A. C. S., Edward S. Elcock Professor of Surgery, Northwestern University Medical School. Fourth edition. 1047 illustrations. 1157 pages. W. B. Saunders Company, Philadelphia and London, \$21.00.

PHYSICAL EXAMINATION OF THE SURGICAL PATIENT. By J. Englebert Dunphy, M. D., F. A. C. S., Professor of Surgery, Harvard Medical School; and Thomas W. Botsford, M. D., F. A. C. S. Clinical Associate in Surgery, Harvard Medical School. Second edition. 375 pages with 203 figures. W. B. Saunders Company, Philadelphia and London. \$8.00.

EMERGENCY TREATMENT AND MANAGEMENT. By Thomas Flint, Jr., M. D., Director, Division of Industrial Relations, Permanente Medical Group, Oakland and Richmond, California. Second edition. 539 pages. W. B. Saunders Company, Philadelphia and London, \$8.00.

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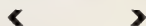
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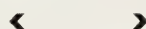
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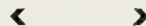
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The Month in Washington



Washington, D. C. — The 86th Congress convenes January 7 with a top-heavy Democratic majority in both House and Senate. This, in turn, will find all Congressional committees including those dealing in health bills, with a higher proportion of Democrats.

Because legislation rarely gets to the floor for a vote unless some committee sends it there, the makeup of committees are of considerable importance in any Congress. It will be doubly so in the 86th Congress, where so many new personalities and new ideas promise to abound.

In the Senate during the 85th Congress when the line-up was 49 Democrats to 47 Republicans, committees were fairly evenly divided — generally only one more Democrat than Republican. With the ratio in the Senate increased to 62 to 34, committee composition may run as much as 10 to 5 or 9 to 6 in favor of the majority party. The Reorganization Act of 1946 assures each Senator of two committee assignments, which means 26 new places have to be found on Senate committees in January.

The party ratio for House committees likewise will run high in favor of the Democrats.

Each party and each branch of Congress have their own way of naming members to the many committees.

In the Senate, the Democrats make appointments through a standing 15-man group known as the Democratic Steering Committee. Its chairman is Majority Leader Lyndon Johnson and other members are Senators Mansfield, Hennings, Chavez, Ellender, Frear, Russell, Hayden, Hol-

land, Humphrey, Pastore, McClellan, Robertson, and Johnston of South Carolina.

The Republicans in the Senate make their appointments through a 5-man Committee on Committees which in the last Congress was made up of Senators Knowland, Bricker, Saltonstall, Bridges, and Dirksen.

In the House, the selection of Democratic members is done by the majority members of the Ways and Means Committee which sits as a Committee on Committees. The Republicans have a different approach. When Congress convenes, each state delegation meets and names a representative to a Committee on Committees; he has as many votes on the committee as there are Republicans in his delegation. Chairman of the committee is Minority Leader Joseph Martin.

The House Ways and Means Committee which undoubtedly will be considering legislation of import to physicians (hospitalization of the aged under social security and tax deferrals on money paid into annuities) has for several years been divided 15 Democrats to 10 Republicans. This ratio may change to 17 to 8. In any event, seven members will not serve in the new Congress. One was lost through death, four decided not to run for re-election to the House, and two were defeated at the polls.

The Senate Finance Committee, which will be handling much the same legislation as Ways and Means, has been divided 8 to 7. It is certain that three Republicans will not serve again; two

(Continued on page 36)

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WASHINGTON (Continued)

retired from the Senate and one was defeated in the recent elections.

House Interstate Committee, another group of importance to the profession because of its interest in federal aid to medical schools and Hill-Burton amendments among other things, has lost the three top ranking Republicans and the only physician serving on a committee dealing with health. Either they did not seek re-election or they were defeated at the polls.

Senate Labor Committee, which has jurisdiction over most of the major health proposals in the Senate outside of social security, loses three Republican members. Its present line-up of 8 to 7 will be changed too, probably to 10 to 5.

Physician members of the 86th Congress number four. This is one less than in the 85th Congress. Returned again were Drs. Walter Judd of Minnesota and Thomas Morgan and Ivor Fenton, both of Pennsylvania. Defeated were Drs. Will Neal of Virginia and A. L. Miller of Nebraska.

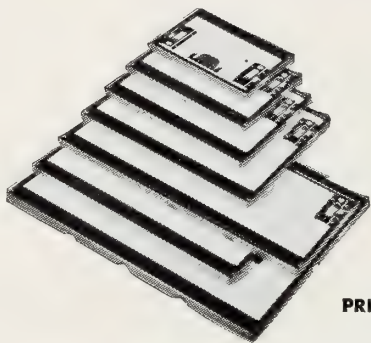
One new physician has been added. He is Dr. Thomas Dale Alford, a board ophthalmologist of Little Rock, Ark., where he has been in active practice since 1948. Dr. Alford, 42, was educated in Arkansas schools and received his medical degree from the University of Arkansas. He served in the Army Medical Corps during World War II.

Dr. Morgan, who has been acting chairman of the House Foreign Affairs Committee since last summer, is slated to become chairman when the new Congress is formally organized. He will thus be the first physician chairman in the 136 years of the committee.

◀ ▶

It is dangerous to administer anticoagulants to any patient with intestinal polyps, peptic ulcer, ulcerative colitis, or any other potential bleeding area. If the risk from phlebitis and pulmonary infarction is great, one may administer anticoagulants under precautionary conditions. *Practitioners' Conference. Factors Concerned with Abnormal Coagulation and Thrombosis. New York Med. June 5, 1958.*

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The Malpractice Suit and You

MR. WALTER L. OBLINGER, SPRINGFIELD

Much is being said these days about malpractice. The AMA's legal department has conducted a survey of malpractice (professional liability) that has been most revealing. For its detailed findings consult material published in the Journal of the AMA.¹

While the medical profession generally has noted an increase in the number of claims being made, California in particular has been hard hit. Some county medical societies in California have chosen specialty panels of physicians, available to be called by the legal profession to furnish medical reports and testify in plaintiffs' cases if necessary. This novel step was taken to overcome what some California courts have held to be a "conspiracy of silence" among members of the medical profession. Whether there is a "conspiracy of silence" in fact may be debatable, but in order to give plaintiffs their day in court, the judiciary in some states such as California began to stretch the doctrine of *res ipsa loquitur*. This threw the burden upon the defendant-physician to explain away his alleged negligence and in many cases this burden became insurmountable. Some physicians were unable to explain the reason for the unfortunate result. Thus the jury found for the plaintiff.

It is not the purpose of this article to review the status of professional liability cases in Illinois, but to note that they apparently are becoming

increasingly prevalent. Recently it has been called to our attention that these cases may be on the upsurge in downstate Illinois. What it is hoped to be done herein is to review some of the things the average practitioner can do to protect himself, his property, and estate from unwarranted lawsuits.

INSURANCE

Recently, a jury awarded a judgment of \$650,000 in a personal injury case; and a settlement was made in Tulsa, Oklahoma in another case against a physician for \$100,000. Several suits have been filed in California for \$100,000 or more. The trend is toward higher and higher verdicts. All physicians should carry professional liability insurance with adequate limits.

In placing your insurance, first pick a solvent company. Your medical society or your insurance agent should be able to help you here. Then determine the extent of coverage. Does the policy cover tort liability? How about loss of service suits brought by a spouse? Are actions arising out of an autopsy covered? How about claims against a physician's estate after his death? Is slander covered? If the physician neglected to get the patient's consent to a particular procedure, does the policy cover actions brought for assault and battery? Does the policy cover contractual liability? The theory of this suit is that the physician guaranteed a result—a cure—and failed to perform. Does the contract of insur-

Associate Counsel, Illinois State Medical Society.

ance contain a blanket promise to pay all losses by reason of liability imposed by law?

Remember that the premium will have to be adjusted from time to time to meet the loss experience. A word of caution is in order. At the time of application, make full disclosure of all the facts at the risk of cancellation at the time of suit. The AMA study discloses that the full-time specialist incurs 50 per cent of all claims, the general practitioner 32 per cent, the part-time specialist 15 per cent, and all others 3 per cent. Accordingly, it does not seem fair to charge all physicians the same base premium because not all have the same loss experience.

TYPE OF CLAIMS

The California Medical Association has been conducting a study of the type of malpractice claims being filed in that State. They report² that suits are being filed or claims threatened for such things as cardiac arrest after administration of anesthesia in young, middle-aged, and older patients; loss of motion or numbness in one of the extremities after spinal anesthesia; burn on the cheek alleged to have been caused by some substance on the strap of a face mask used during anesthetic.

In the field of neurosurgery, two complaints were made after cervical laminectomies; in one, the patient claims he could not work after surgery and in the other, the patient did not regain consciousness, although the procedure was done without incident. In the field of obstetrics and gynecology, suits were brought charging negligence in "flipping" a fetus in the uterus prior to delivery, resulting in stillbirth. In another, the patient went into deep shock after delivery, and expired four hours later; autopsy disclosed amniotic fluid embolism.

In another case, surgery performed in March, 1955, to determine the cause of acute pelvic inflammatory disease, resulted in the left tube being freed of adhesions. In 1957, the patient claimed the ovaries were infected and should have been removed. In the field of eye, ear, nose, and throat, three claims were made charging that a mouth burn was incurred by a hot instrument used during a tonsillectomy. Another claim was made, charging that a tooth was fragmented during tonsillectomy, from pressure against a Jennings mouth gag. A cardiac arrest problem arose out of two tonsillectomies.

In the field of orthopedics, two instances were reported of broken fingers and deformity resulting. In one, the finger was scarred by burn resulting from a vibrating plaster saw. In the other, stainless steel wires were used in emergency repair of a tendon severed in an automobile accident. Recovery was normal and good function resulted, but suit was threatened due to the use of stainless steel. In another case, the physician did an open reduction of a severe fracture of the right elbow of a teen-age female. The patient failed to report for postoperative visits. The father complained that the daughter had stiffness in the elbow and some loss of motion. Many other complaints were received consisting of shortening of limbs after reduction of fractures, loss of motion, or infection developing in abrasions. One suit was threatened on the theory that there was no follow-up X-ray in treatment of a fracture, where removal of cast disclosed the fracture had failed to unite.

In the field of radiology, claims were brought for perforation of the rectum and another for perforation of the sigmoid during the administration of barium enemas. In a case of treatment for recurrent hyperthyroidism, thyroid extract was administered to counteract the effect of radioactive iodine. The patient, a 37 year old female, began to lose hair and to gain weight. Suit was filed alleging negligence in administering a radioactive substance.

In the field of general surgery, complaints were received charging alleged negligence in puncturing the intestinal tract. In one case, a 62 year old male dropped a sander on his finger, and was treated for lacerations and minor fracture, but no tetanus antitoxin was administered. Suture was removed seven days later. The following day the patient complained of a sore jaw, was hospitalized, and died four days later. Suit was filed. In another case, the physician sued for his bill for medical services, only to be confronted with a cross-bill alleging negligent performance of surgery, which disclosed carcinoma with extensive metastases. In another case, after hysterectomy, leakage of urine was noticed. Repair surgery found necrotic areas in the bladder and in the ureter, possibly due to previous sutures.

While the plaintiff will not win in all these cases, still the physician in each case will have his patience tried. A review of these cases and of many others being studied would seem to indi-

cate that the public does not realize that medicine is not an exact science, and that the physician is not a guarantor of a result. The public is demanding cures, and when they are not forthcoming, an effort is made to find some basis upon which to hold the physician liable. In the circumstances, it behooves him to be circumspect in everything he does, and to be particularly candid in explaining the procedure to be used, the risks involved, and above all, not to lead the patient to believe that cure can be accomplished. Perhaps, what is needed is a long range educational program to acquaint the public with the limitations of medicine.

PREVENTIVE MEDICINE

The alert physician can do much to protect himself against malpractice claims. He should obtain consent in writing from the patient, in situations where experience has shown that the signing of such forms might prevent a lawsuit. This consent should be sufficiently broad in scope to take care of the emergency situation. Consult the AMA legal department's manual on legal forms.³ The surgeon should make reasonable disclosure of the risks involved before operating. It has been suggested that the physician call in a nurse to witness the explanation. Others have adopted a policy of putting the explanation in the form of a letter, which they send the patient by registered mail before the operation. This letter should state that no cure is promised. These letters, written at the time of the procedure, have been effective in preventing suit or recovery upon suit.

Another suggestion, not quite as good, would be to make detailed notes at the time prognosis is discussed with the patient. These notes can be placed in the medical history of the patient and may be admissible in court to show that a full disclosure was made and that no cure was promised.

When a patient does not return for post-operative treatment the physician might send a registered letter explaining the necessity for such treatment, and stating that he will not be responsible for any complications resulting from failure to receive such treatment.

Do not rely upon hospital personnel to obtain the proper release. Except in emergencies, see to it that the proper release has been obtained

before performing the indicated procedure and that it is kept in your file.

Do not permit X-rays or laboratory reports to be filed in the patient's folder until you have read them. If a broken bone or some other important matter is disclosed for the first time, put the patient on notice, with a registered letter. Do not rely upon the patient to return. He may not do so.

The AMA study shows that one of the reasons malpractice suits are being filed is because some physicians talk too much. Two cases, recently filed in downstate Illinois, have been traced to residents in a large hospital in another part of the state, who made unguarded statements concerning prior treatment received. This point has been admirably handled in the joint AMA-ABA film, "The Doctor Defendant" which is recommended as "must" viewing for all physicians. Remember, you cannot judge another physician without a full knowledge of all the facts. And even then remember you are second-guessing and your diagnosis might just be wrong.

In his article, "Professional Liability Claims Prevention,"⁴ Mr. Howard Hassard reaches the heart of the problem. "Most cases, both warranted and unwarranted, are found to stem from human relations problems. There is a lack of frankness or human understanding by the physician; people are not inanimate objects, nor can they be assumed to be stupid. The physician must be kind, courteous, sympathetic, and frank if he is to avoid sowing the seeds of doubt, resentment, distrust, and anger." "There is no easy short cut to elimination of the malpractice menace. The incidence of claims may, however, be sharply reduced by an intelligent and determined program of education of each physician to his legal duties and to the irritants that create a suit-minded patient. Patients frequently forgive the accidents of medicine when they are fully informed and fairly treated. A patient who knows that his doctor is really interested in his welfare and is trying hard rarely sues."

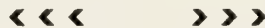
Mr. Hassard makes these suggestions to avoid malpractice suits: "1. Do not undertake any procedure unless you are fully qualified. 2. When in doubt—consult. 3. Shun experimentation or the use of drugs or procedures with which you are not fully familiar—if the patient's welfare requires a calculated risk, explain it in advance.

4. If an accident happens (e.g. foreign body lost during surgery, wrong bottle taken from shelf, etc.), explain fully and carefully what occurred—do not conceal, do not say, “I made a mistake,” do not blame someone else (nurse, etc.)—but, do explain the facts. 5. At all times, maintain current, accurate, and legible records. Never alter, or destroy, a record after a complaint is registered. 6. Don’t take on more work than you can reasonably handle. Remember, fatigue causes accidents everywhere, not just on highways. 7. If you and a patient are not compatible, sever relations and help the patient to another physician. You will both be happier. 8. Discuss your fees frankly and in advance. Realize that people have many obligations other than the cost of medical care. 9. Keep abreast of medicine. Physicians and lawyers alike never complete their schooling. Remember, we asked for it.”

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Nerve deafness

Nerve deafness, frequently of sudden onset, may be a sequela of thrombosis, hemorrhage, or vasospasm of the labyrinthine vessels. Hallberg calls attention to the wisdom of the inclusion of blood tests for cholesterol, total lipids and fatty acids in the general examination. The possible value of low fat diets in patients with elevated

blood cholesterol levels is obvious. Fowler stresses the importance of intravascular agglutination of the red blood cells in both nerve deafness and otosclerosis. He mentions how easily emotional stress will cause this sludging, with resultant anoxia. *D. K. Lewis, M.D. Recent Contributions to the Study of Deafness. New England J. Med. July 24, 1958.*

Common Kidney Diseases

JOHN M. COLEMAN, M.D., CHICAGO

THE kidney is prone to much acute, subacute, and chronic pathology, malfunction, and structural change. This presentation will discuss four of the more common kidney diseases — glomerulonephritis, pyelonephritis, lower nephron nephrosis, and the nephroses — together with some of the reversible states of uremia.

Because the renal diseases and uremic states selected are extensive in their various aspects and ramifications, discussion of each will necessarily be limited to some of the essential features of etiology, symptoms, pathogenesis, and the clinical approach to diagnosis and treatment.

There are numerous classifications of renal disease, such as those of Allen,¹ Christian,² Ellis,³ Harrison,⁴ Bell,⁵ and many others. Also, the terminology for the description of the various divisions of kidney diseases is diverse and varied. While there is more agreement today on the essential features of the numerous classifications, as yet no one classification has been universally accepted. For the purpose of this discussion, the following form will be used:

- Glomerulonephritis
- Nephrotic Syndrome
- Pure Nephrosis
- Interstitial Nephritis
- Acute Tubular Necrosis
- Vascular Nephritis
- Congenital Structural Defects
- Metabolic Renal Defects
- Renal Tumors

GLOMERULONEPHRITIS

The etiology and pathogenesis of glomerulonephritis are scarcely clearer now than when first described by Bright in 1836. The disease is observed in both acute and chronic form and is characterized by proteinuria, cylindruria, and hematuria.

From the Department of Medicine, Stritch School of Medicine, Loyola University, Mercy Hospital, and Vaughn Medical Group, Chicago.

Presented before the 118th Annual Meeting of the Illinois State Medical Society, Chicago, May 22, 1958.

Etiologically, glomerulonephritis is a sequel to infection, the vast majority of cases following upper respiratory infections. The hemolytic streptococcus (Type 12, Group A of Lancefield) is of prime importance as shown by bacteriologic and immunologic studies. Pneumococci and gram negative cocci also have been named as causative organisms. Certain poisons such as carbon tetrachloride, pentachloronaphthalene, and mercury salt, lend to renal irritation with proteinuria, hematuria, and oliguria. However, because of the variability of the disease, it is almost impossible to delineate the cause. Bacteriologic studies have shown that true invasion of the kidneys by an infectious agent does not occur in acute and chronic nephritis, except in the presence of bacterial endocarditis or sepsis. Because of the fact that glomerulonephritis follows in from 10 to 20 days after an infection, the possibility of an immune body reaction has been suggested.

The disease predominates in males in a ratio of 2 to one, and it is more prevalent in children and young adults. Acute glomerulonephritis occurs chiefly in the first two decades of life, although no age is exempt. The age of onset is difficult to determine, because the beginning of the disease often is insidious.

Classical symptoms of acute glomerulonephritis are hematuria, puffiness of the face particularly under the eyes, temperature rise, headache, anorexia, vomiting, anuria, and oliguria. In fulminating cases, the manifestations may include generalized edema, disturbances of vision, extreme hypertension, and marked dyspnea. Delirium, convulsions, coma, and death may ensue. In many patients, edema is the only complaint or objective physical finding. Less frequently, gross hematuria alone attracts attention to the disease.

In the acute stage, blood pressure [either diastolic or systolic] is elevated in about 25 per cent of the patients. In about 10 per cent, the systolic reaches 180 to 200 and the diastolic may be

maintained well above 110. Both cardiac and cerebral changes appear to be more related to hypertension than to glomerulonephritis itself. Hypertensive encephalopathy often is a terminal sign.

Symptoms in the chronic phase of the disease are a generalized malaise, frequency of urination, characteristic pallor, and varying degrees of azotemia. There also are disturbances of vision and on occasion, blindness. Edema of the optic disks appears frequently.

The urinary findings in acute glomerulonephritis are a smoky appearance due to red blood cells, proteinuria; occasional white blood cells; and granular, red blood cell, hyaline, and waxy casts. Usually the specific gravity is normal. In the typical case, diagnosis is not difficult. However, it may not be easy when the characteristic urinary findings of acute glomerulonephritis appear during or after acute infection with hemolytic streptococcus, but unaccompanied by edema, hypertension, or nitrogen retention.

During the nephrotic stage of glomerulonephritis, the urinary findings are massive proteinuria, granular, hyaline, and waxy casts, and doubly refractile lipoid bodies; some red blood cells and leucocytes may be present. The specific gravity becomes fixed at between 1.008 and 1.012.

In the chronic stage, proteinuria is less marked, and numerous red blood cells lend a smoky appearance to the urine as in the acute phase. In addition, there are moderate leucocytes and broad, granular, hyaline, and waxy casts. The late stage, when the kidney tubules have difficulty in absorbing fluid, is characterized by nocturia and increased thirst.

In chronic glomerulonephritis, the anemia that develops usually is hypochromic — rarely, hyperchromic. Bone marrow shows partial arrest of hematopoiesis in the erythroblastic stage. In two-thirds of the patients, increased capillary fragility causes purpura.

In all patients presenting the picture of advanced renal insufficiency, the possibility must be borne in mind of renal disease other than nephritis. Pyelonephritis, periarteritis nodosa, bilateral renal tuberculosis, and hydronephrosis are due to ureteral or prostatic obstruction, and advanced polycystic disease of the kidneys may terminate in uremia.

A few factors denote an increasingly ominous

outlook in a case of glomerulonephritis. Progressive elevation of blood pressure and of cardiac insufficiency are signs of demise. The presence of choked disks, arterial changes, hemorrhages, and exudates usually offers a prognosis of less than two years. Progressive anemia and pericarditis are other signs of a rapidly approaching end. Schneckloth and Page⁶ point out that "the proportion of acute cases terminating in chronic glomerulonephritis rises with increasing age at onset; probably less than half of adult patients completely recover." According to Bell⁵ subacute and chronic glomerulonephritis accounts for 0.4 per cent of deaths of individuals over the age of 20.

There is no treatment for the latent stage of the disease. If hematuria appears or shows progression at an annual check-up, the patient should be treated as having acute nephritis. Bed rest is the most important phase of this therapy.

During the nephrotic stage, intermittent bed rest is indicated, to inhibit the development of edema. Rigid salt restriction and incorporation of enough protein in the diet to maintain nitrogen equilibrium, constitute the basic dietary principles. Symptomatic treatment includes digitalis, sedatives, and hypotensive drugs. Blood transfusions offer the best treatment of anemia; iron and liver are notoriously disappointing.

Cardiac insufficiency sometimes imposes a burden because of fluid retention. Ordinarily fluids may be restricted to 2,500 cc. daily. Salt restriction and limitation of protein to 50 gm. daily are recommended. Elevated venous pressure, particularly when associated with pulmonary edema, may be relieved by phlebotomy. The injudicious use of mercurials in the face of renal insufficiency must be condemned; they induce hematuria, anuria, and severe sodium depletion. Occasionally the discreet use of ACTH has produced a state of remission from the nephrotic stage.

PYELONEPHRITIS

Pyelonephritis is caused by bacterial infection, the bacteria reaching the kidneys through the blood stream, ureters, the periureteral lymphatics, or directly from the lymphatics of the bowel. Hematogenous infections are the most common. Kidneys ordinarily do not filter bacteria, and their presence in the urine indicates some degree of renal damage.

More than half the infections are caused by *Escherichia coli*. Next in frequency are staphylococci and streptococci. *Proteus vulgaris* and *Pseudomonas aeruginosa* are rarer causative agents. Hemolytic streptococci usually produce focal glomerulonephritis or acute interstitial nephritis. Staphylococcal infections usually manifest themselves in pyelonephritis by small abscesses, most abundant in the cortex. *Escherichia coli* usually involve the kidney pelvis.

In the acute stage of pyelonephritis, the ureter and pelvis show various degrees of inflammation; the mucous membrane is red and thickened, and at times shows small ulcers or a pseudomembrane. In the chronic stage, there may be areas of cloudy swelling, suppuration, or scar formation, with normal intervening parenchyma; but the clinical picture varies, and symptoms may be so mild the disease is unrecognized until the terminal stage.

Symptoms of pyelonephritis usually include malaise; urinary disturbances such as frequency, burning, and dysuria; and pain in the loin. Tenderness on palpation of the kidney or in the costovertebral angle, should arouse suspicion of renal suppuration, in the presence of known infection elsewhere in the body. The urine contains bacteria, a moderate amount of proteinuria, clumps of leucocytes, red blood cells, and varying amounts of pus [the largest amounts are found when the renal pelvis and ureter are predominantly involved]. Reaction of the urine is neutral or acid when *Escherichia coli* are present, and alkaline with *Proteus vulgaris*. Hypertension occurs in about one-fourth of all patients, and rarely is of the malignant type.

Culture of the urine is essential to determine the causative bacteria. If the cause of urinary infection cannot be determined, roentgenographic examination should be made. Urologic study — often with pyelograms — is called for when the urinary infection continues unabated, to determine whether a renal anomaly or hydronephrosis is present.

Prognosis of acute pyelonephritis is excellent. When the disease is secondary to obstruction or stone in the urinary tract, the chronic form of pyelonephritis develops unless the specific cause is eliminated.

Treatment consists of bed rest, liberal fluids, and antibiotics. In acute pyelonephritis associated with stone or obstruction of the urinary

passages, surgical intervention is indicated, if feasible.

LOWER NEPHRON NEPHROSIS (ACUTE RENAL FAILURE)

This condition is characterized by necrosis of areas of tubular epithelium, producing anuria or oliguria. From a structural or physiologic point of view, it might be termed acute tubular necrosis, lower nephron nephrosis, acute ischemic necrosis, or acute renal failure.

Etiologically, lower nephron nephrosis is variable. However, shock and crush injuries are important causative factors. As to its pathogenesis, the primary factor appears to be reduced renal circulation. Subsidiary mechanisms probably are allergic responses with increased intrarenal pressure, and damage produced by nephrotoxins. When there is interference with blood supply, there may be patchy dissolution of the basement membrane of the renal tubules, which often progresses to necrosis and tubular disruption. If caused by poisoning, as from chloroform or carbon tetrachloride, the initial lesions are found in the cells of the proximal convolutions, where changes range from cloudy swelling to complete necrosis.

Prolonged renal vasospasm resulting from shock can produce acute nephrotic lesions without evidence of arterial emboli or tubular blockage. Renal lesions after crushing injuries appear to involve more than simple anoxemia. If absorption from the injured part is delayed, some renal damage may be prevented. Similar breakdown products may contribute to renal damage in incompatible transfusions and in concealed hemorrhage or disease. Increased renal pressures caused by allergic reaction or sudden blockage of urinary outflow by casts, crystals, or necrotic tubular epithelium, may injure the kidney by producing intestinal edema or interfering with blood supply.

Dehydration and electrolyte imbalance, with or without shock, frequently precede the onset of acute renal shutdown. Oliguria in dehydration is a physiologic response to increased concentration of body fluids. When both water and electrolytes are lost, highly concentrated urine is secreted in extremely small quantities. The combination of severe electrolyte depletion with extreme changes in urinary pH may cause renal damage.

Anuria, oliguria, hematuria, generalized malaise, and central nervous system aberration usually are present in this type of renal disease. Oliguria and urinary findings of proteinuria, red and white blood cells, and casts, are significant in diagnostic determination. A high specific gravity is the rule and the blood reveals an elevated urea nitrogen and nonprotein nitrogen.

Once the underlying causes of lower nephron nephrosis have been corrected, the basic therapeutic problem is to maintain the patient until renal function is resumed. Overloading the circulation places an extra burden on the already damaged kidneys. The primary cause of death in acute renal failure is potassium intoxication. Thus protein and potassium intake should be restricted. However, carbohydrate intake with insulin should be increased to augment potassium storage with glycogen. Cation exchange resins in the sodium phase, increased intestinal excretion of potassium, and calcium gluconate, can be given to antagonize the myocardial toxic effects of high level potassium. Rigid control of infection is essential during this stage, to prevent further catabolism and water loss.

When conservative treatment is ineffective, peritoneal dialysis and intestinal profusion have been found useful, particularly when hemodialysis through an artificial kidney is contraindicated or unavailable. With the onset of diuresis, careful replacement of fluids and electrolytes is necessary to replace the overwhelming loss of water and salt.

THE NEPHROSES (THE NEPHROTIC SYNDROME)

Based upon the histologic connotation, numerous clinical conditions known to cause tubular damage have been classified as the nephroses. Among the causes are true or lipoid nephrosis, the nephrotic stage of chronic glomerulonephritis, amyloidosis of the kidney, syphilitic nephrosis, intercapillary glomerulosclerosis (Kimmelstiel-Wilson's syndrome), renal vein thrombosis, lupus erythematosus, and drug toxicity such as that caused by Tridione®.

This clinical state is characterized by edema, proteinuria, decreased plasma albumin, elevation of blood lipids and cholesterol, and commonly a lowered basal metabolic rate. Other signs and symptoms include pallor, anorexia, and gastrointestinal disturbances. Hypoalbumi-

nemia deserves first mention as a force tending to increase extracellular fluid in nephrotic patients. The effect of sodium on edema remains unsolved, but certainly contributes to it. There also has been some evidence in favor of increased capillary wall permeability.

The urine reveals marked proteinuria, doubly refractile lipoid bodies, and granular, hyaline, and waxy casts. The plasma may have a milky appearance and reveal an increase in lipids; cholesterol may reach levels over 1,000 mg. The urine contains large quantities of protein — averaging 5 to 10 gm. but reaching 30 gm. These proteins are qualitatively identical with those found in the plasma but albumin predominates so that the electrophoretic pattern of the urine resembles that of normal plasma. Probably there is some defect in the glomerulus. Decrease in serum proteins is found essentially in the albumin fraction. This lowering of serum albumin has been blamed upon the heavy albuminuria. Undoubtedly this plays a role but it is generally conceded that some other mechanism, such as interference with protein synthesis, is a causative factor.

Apparently the characteristic low basal metabolic rate in the nephrotic syndrome does not necessarily represent abnormal function of the thyroid gland, since radioactive iodine uptake is not diminished. Furthermore, thyrotropic hormones provoke a normal increase in the serum protein-bound iodine. However, this substance is consistently low, caused in part by its loss in the urine.

Therapy for the nephrotic syndrome consists of a low sodium diet, mercurials, and gum acacia and salt-free albumin. Both of the latter are of limited value. Artificial fever, ACTH, and cortisone are of some value but do not consistently reverse the nephrotic stage.

PROBABLE REVERSIBLE STATES OF UREMIA

Contributory Congestive Heart Failure

Among the etiologic factors of this condition are rheumatic fever, arteriosclerosis, and hypertension. In heart failure there usually is a decreased glomerular filtration rate and renal blood flow and deterioration in other renal functions, all of which may contribute to uremia. Congestive heart failure may produce proteinuria, casts, and red blood cells in the urine in patients

with otherwise normal kidneys. The urine in such cases usually is of high specific gravity and the nonprotein nitrogen level rarely goes over 50 to 60 mg. per 100 cc. On the other hand, in the patient with chronic kidney disease, congestive heart failure may make the difference between renal compensation and progressive uremia. Therapy of this condition consists of a low salt diet, digitalis, and diuretics.

Infections

Repeated urinary infections are caused by pyelonephritis or may be iatrogenic (introduced by catheter). The mechanism is active destruction of renal tissue by bacteria. Therefore, in every patient with chronic renal disease, a urine culture should be made. Destruction of renal tissue by pyelonephritis, may progress without fever, chills, leucocytosis, urinary symptoms such as burning or pain, or tenderness in the costovertebral angle.

Systemic infections apparently have a damaging effect upon the kidneys. They tend to speed up the development of azotemia by increased breakdown of protein and nitrogenous waste products in the blood. Epstein⁷ points out. "In an age of antibiotics, in which bacterial endocarditis can be successfully treated, it is important to remember that one of the ways in which this disease can appear is as advanced renal failure, which may improve if the primary disease is cured."

Therapy is appropriate antibiotics if the infecting organism is found. Indwelling catheters should be avoided, whenever possible, in such patients.

Hyponatremia

Mercurials may produce hyponatremia, and in patients with or without renal disease, diarrhea or vomiting may be an important cause of sodium depletion. The same may be true of loss of electrolytes through draining fistulae or constant suction. Profuse perspiration and inadequate replacement of water — as, for example, at surgery — may cause marked loss of salt and water. In patients with salt depletion, replacement of water without salt will produce hyponatremia, hypotonicity, and overhydration of cells.

When active reabsorption of sodium by the renal tubules is impaired, sodium may be wasted in the urine. Salt depletion tends to reduce car-

diac activity and lower arterial pressure. Rates of glomerular filtration and renal blood flow fall. Although the urine flow usually is reduced, uremia may develop with salt depletion even when the urine volume is normal.

Symptoms of hyponatremia are nausea, anorexia, listlessness, fatigue, and painful muscle cramps. With progression of sodium depletion neurologic manifestations are emphasized. There may be generalized muscular tremors and twitching, mental confusion, somnolence, and coma. The condition may produce levels of non-protein nitrogen of over 100 mg. per 100 cc. even when there is no underlying renal disease.

Rectifying low sodium by parenteral or oral means often will give dramatic relief. Patients with extensive pulmonary or chronic wasting diseases are prone to chronic hyponatremia. In such patients a low level of serum sodium causes no symptoms hence treatment is of no benefit.

Alkalosis and Potassium Depletion

Among the causes of this condition are diarrhea, vomiting, fistulae and suction of small bowel, diabetic acidosis, and aldosteronism. Chronic alkalosis is seen in patients who ingest enormous amounts of alkali. When alkalosis is continuous for days, glomerular filtration rate falls, nitrogen retention increases, phenolsulphonephthalein excretion decreases, and the concentration powers of the kidney are altered. The mechanism of this disturbance is not clear but reduction of glomerular filtration probably is responsible. Inability of the kidney to concentrate urine and consequent polyuria may be a mechanism for potassium depletion. Therapy is directed toward the underlying cause.

Hypercalcemia

Etiology of this condition includes hyperparathyroidism, intoxication with vitamin D, Boeck's sarcoid, or ingestion of massive amounts of milk and calcium salts (milk alkali syndrome). These causes may produce elevation of the calcium level in the serum, which appears to have a harmful effect upon renal function. The mechanism may be increased deposition of calcium, either as stones in the collecting system, or renal calcinosis. These changes in turn either replace normal kidney parenchyma or obstruct the collecting system from removing urine. Infection of the urinary tract also may ensue.

Through a slit lamp, ocular calcification can be observed in the conjunctiva and at the medial and lateral margins of the cornea, and is a valuable diagnostic sign. Reversibility of the mechanisms and their resultant changes are highly variable. Sometimes prognosis is poor; at other times, good. Therapy of hypercalcemia is directed to the parathyroids and other precipitating causes.

Obstruction

This condition is caused by prostatic obstruction, urethral stricture, stones, tumors producing external pressure on the ureters, and neurogenic bladder. Occasionally pregnancy will produce partial obstruction. Increased pressure in the collecting system, transmitted to the renal parenchyma, results in a depression of many renal functions that are at least partially reversible when obstruction is relieved. Treatment is aimed at surgical or radiological relief of the obstruction.

Dehydration

Among the causes of dehydration are excessive fluid restriction, the nocturnal polyuria of chronic nephritis, uncontrolled diabetes mellitus, untreated Addison's disease, persistent vomiting and diarrhea, and amino acidurias. By decreasing the extracellular fluids, dehydration leads to lessened glomerular filtration and urine output. This results in the accumulation of nitrogenous and inorganic waste products in the blood. The patient becomes nauseated and may vomit. Treatment is by judicious administration of fluids and electrolytes, either by mouth or intravenously. Encouraging these patients to drink is of primary importance. Frequently a carbohydrate or hot drink immediately upon awakening will prevent intractable vomiting. Chlorpromazine (10 to 25 mg.) the first thing in the morning and shortly before the noon meal often will alleviate nausea.

COMMENT

During the last 25 to 30 years there has been an increasing conviction that a correlation between changes in renal structure and function can be established. Also, an existing relationship between these conditions and the metabolic balance of the body fluids has been demonstrated. This has been a valuable adjunct to our diagnostic armamentarium.

Determinations of those correlations have been aided immeasurably by the numerous renal function tests and analyses, chemistries, and cultures of the urine. One of the most basic tests is a thorough examination of the urine and evaluation of the levels of the basic urinary components.

While the scope of this presentation does not permit an extended discussion of the merits and disadvantages of the many tests of renal function, it seems pertinent to point out that these determinations do not always parallel the pathologic and physiologic changes of the kidneys. In general they tend to indicate a trend rather than an exact measurement of urinary function.

It is becoming more evident that a keen insight into the physiologic aspects is the basis of an accurate diagnosis and prognosis of renal disease and gives meaning to the interpretation and application of the renal function tests. The object of this paper has been to stress that renal disease cannot be diagnosed from urinalysis alone but that the history, condition of the cardiovascular system, endocrine glands, and iatrogenic factors also must be carefully scrutinized. It is the duty of the physician who sees a patient with abnormal urinary findings or azotemia to deduce the underlying cause from all available clinical and laboratory facilities.

With regard to treatment of renal disease and possible reversal of some of the uremic states, the author concurs with Epstein who states, "Treatment should not be standardized or consist chiefly of masterful inactivity. On the contrary, therapy for the uremic patient should and can be highly individualized, predicated on sound physiological principles, and motivated by a careful and systematic search for contributory causes of renal decompensation that can be completely or partially reversed by treatment."

Finally, in a forward look, we recognize that more exact treatment and diagnosis is ahead of us, with renal biopsy, aortography, perirenal air insufflation, dialysis, and transplantation of the human kidney.

SUMMARY

A cursory discussion of glomerulonephritis, pyelonephritis, lower nephron nephrosis, the nephroses, and reversible states of uremia has been presented. It emphasizes the salient points of diagnosis and treatment in uremic patients

who, when the disorder is reversed, may live comfortable and useful lives.

2015 East 79th Street.

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How Shall We Judge?

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For a great many years, and particularly often in the past 20 years, the medical profession has been called upon to make decisions concerning some plan or plans for medical care. In making these decisions on what is good and what is not good there can and must be only one yardstick—is the patient getting good care?

You can't judge plans or decide what is good or bad by quoting slogans. You can shout "Americanism" but you can't define it. You can refer to the "Code of Ethics" but unless you produce chapter and verse, you have proved nothing. "Free Choice of Physician" and "Third Party Plan" all change from time to time. Nothing is entirely black or entirely white. All of the plans for medical care have some merit and some faults.

Plans where people put their own money into a kitty, from which the cost of physician and hospital are paid, are nothing more nor less than co-ops. They are not government medicine and are not contrary to the code of ethics. They can provide excellent medical care and, if properly supervised, can fit into the practice of medicine without causing any major dislocations.

If we examine union health centers, using the yardstick of what is good medicine for sick people, they stack up quite well. The recipients get

good service for their medical care dollar. For example, the Building Service Employees group has in its membership many charwomen who clean loop office buildings by night. These women have had little medical care in their lives; their babies were born with midwives in attendance and they were candidates for Cook County Hospital or free beds when they needed hospitalization.

As organized medicine, have we up to now concerned ourselves about them? Have we insisted on free choice of physician at the County Hospital? Why then do some of us now demand free choice of physician since these people are paying their own bills through the Union Health Fund? This important question deserves study and reply. Let us examine the matter carefully, and answer first the question posed above about our concern for these people while they were getting their care from Cook County Hospital or from the welfare department. Actually, we did care about these people. We know that the County Hospital holds competitive examinations for staff appointment every six years and that the physicians at that hospital are the best. Therefore, we apparently felt that free choice of physician was not important so long as we were assured of the excellence of the medical care. The

same applies to the welfare department; a Medical Society committee has for years actively supervised the quality of medical care given to the indigent and recipients of unemployment relief.

If we would now transfer this concern for the welfare of the patient to the union health center, why not inspect, supervise, and consult with the medical directors of these centers, so that we can be assured patients get good care? Since we did not insist upon free choice of physician at the county or welfare, why demand it now.

Free choice does not in itself guarantee good medical care. Reading the daily newspapers will show that many people willingly or erroneously patronize quacks. People need guidance in selecting a physician. A certain amount of free choice is desirable, but only after proper screening of the list from which the selection has been made. As a matter of fact, the Chicago Medical Society has an active committee that inspects the health centers, consults with their administrators, and has had a friendly relation with these institutions.

The House of Delegates of the AMA, in the *United Mine Workers vs. Medicine* dispute, I am happy to say, uses the criterion of "quality and availability of medical and hospital care" to judge the United Mine Workers Welfare and Retirement Fund program. Many physicians, however, have judged the plan on the way they themselves can fit into it. The House of Delegates, over a period of several years, has heard many resolutions concerning the United Mine Workers Welfare and Retirement Fund. Many of them were written in strong language and demanded a scalp here and there. It is to the everlasting credit of the AMA that they have resolved this quarrel down to one yardstick, and even though they still must condemn some of the actions of

the Fund, the basis for condemnation is "quality and availability of medical and hospital care."

Again, where were we when the mining towns had only one physician, usually paid by the mines? Did we insist on freedom of choice or did we belabor "third party?" We did not. We insisted only on good care. Let me quote chapter and verse. In the June 1955 printing of the *Principles of Medical Ethics*, Chapter VII, Section 3, paragraph 2, especially the last three lines:

"Contract practice *per se* is not unethical. Contract practice is unethical if it permits of features or conditions that are declared unethical in these Principles of Medical Ethics or if the contract or any of its provisions causes deterioration of the quality of the medical service rendered."

We were not concerned by "third party" or "freedom of choice." We were concerned—then as now—only with the "quality of the medical services rendered."

Medicine was not developed so the physician could make a living, but for the patient to get good care. There are many plans for medical care and many problems when dealing with these plans. Several criteria can be used to judge these plans. Such slogans as "freedom of choice," "third party," and "Americanism," all change in meaning but the criterion, "How good is the medical care for the sick person?" has stood the test of time. It defeated socialized medicine and it will need to be used again in the same fight. The medical profession should use this criterion in exposing poor plans, improving good plans, and promoting excellent plans of medical care if we want to continue to be permitted to judge what kind of medical care shall be available to our people.

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Lung Cancer and Cigarettes

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In 1928, I performed an appendectomy on a dentist friend of mine. He was a heavy cigarette smoker and, while awaiting the trip to surgery, he consumed a number of them. Finally—crunching one and tossing it into the corner—the dentist said, “There goes my last smoke.” My curiosity aroused, I asked, “How come?” He replied facetiously that if he were lucky enough to survive the mayhem I was about to commit on his person, he was determined to quit smoking; if he wasn’t that lucky, wherever he landed there would be no cigarettes around.

Then he gave me the story. His closest friend—like himself, a heavy smoker—was the son of a prominent Chicago physician. For years he never passed up an opportunity to launch a vigorous verbal assault on the filthy weed and its dangers to health, its forest fire hazards, and fire losses in general. Usually he wound up with, “Why don’t you two reasonably intelligent young upstarts quit the vile habit before it gets a strangle hold on you?” My patient said the good old doctor’s arguments sounded logical and he decided to quit smoking. His experience in quitting followed the usual routine of enthusiasm and determination for a couple of weeks. Then one day, his guard down, he automatically reached for one when the pack was passed—and he was hooked again. A bit humiliated by his weakness, he tried another tack, cutting down to six a day. No dice. Then he switched to cigars, followed by the pipe, and back to the weed wrapped in paper. Angered at himself for his vacillation and indecisiveness, he made up his mind that the next time his resolution would stick.

He had planned to have his last smoke on the first day of his vacation starting a week hence. Instead of going away, here he was facing an emergency operation. He decided this was the last stop for cigarettes. Luck was with him and he survived my scalpel, sponges, sutures, and West Suburban’s pretty nurses. Within a year my friend had gained 20 pounds of badly needed avoirdupois, felt like a million dollars, and was so enthusiastic over the results he decided to go

on a one-man research project to study the effects of smoking on the human species.

His findings were interesting. The first was that the average smoker angrily resented any suggestion that the habit be abandoned. The few who had quit had gained in weight, improved in health to a degree almost unbelievable, and were happy over the results. His close friend, the physician’s son, despite all arguments, smoked merrily on and twitted my patient for giving up a habit that gave so much pleasure.

I was out of contact with my dentist friend for many years until he visited at my home recently. Almost my first question following greetings was, “How is your cigarette crusade going?”

“Not so hot,” was the reply. “Nobody is interested—cigarette sales are increasing every year despite the lung cancer propaganda.”

I asked about his friend, the doctor’s son, and he told of dropping in on him in his loop office one day to find him feeling pretty bad, tired, thin, and run-down—smoking as usual. Reminding him of the good results he had achieved through cutting out smoking, he suggested his friend try the same course. The suggestion was received with more eagerness than expected but action would have to await his return from a business trip to New York. He returned a couple of months later in a casket—lung cancer.

My friend expressed considerable concern over the number of his friends and acquaintances (all heavy smokers) who had passed away from cancer of the lung or esophagus. Recently he had been deeply shocked at the death of a much beloved nephew, an inveterate pipe smoker—cancer of the esophagus.

And so, with the din of the controversy over cigarettes and lung cancer ringing in my ears, I decided to do a bit of research on the subject and, among other things, found that 73 per cent of men and 33 per cent of women smoke. The death rate of lung cancer is increasing (25,000 deaths per year). Mortality is higher in men than women, but the women are catching up. Ninety-five per cent of cases are fatal, mostly in

those past 50. A nonsmoker has ONE chance in 275 of getting lung cancer; a heavy smoker (2 or more packs a day), ONE chance in TEN.

The cause of lung cancer is not known; nor is there any way of detecting it in the early stages. The U. S. Public Health Service issued a statement July 12, 1957, that evidence is increasing that heavy cigarette smoking—two or more packs daily—is one of the causative factors in lung cancer. City folk are more susceptible than country folk.

The British Government, acting on the findings of the Medical Research Council, is warning its people that evidence is conclusive that cigarette smokers are running a greater risk of lung cancer than nonsmokers. The Netherlands National Health Council says deaths from lung cancer in its country were seven times as high in 1955 as in 1930 and that there is an association between smoking and lung cancer.

No one has yet come up with any argument that smoking has any beneficial effects on the body. Smoking just makes them feel good, they say. Maybe marijuana would make them feel even better.

It is reported that many medical men and some prominent laymen are not convinced that cigarette smoking is a causative factor in lung cancer. But it seems to me we have built a puncture-proof case of circumstantial evidence against the culprit. To the unconvinced, I suggest they take a look at the fingers of a chronic cigarette smoker, note the yellow stains, and wonder if the lining of his lungs is the same color and what its effects must be.

Years ago a prominent TV personality plugged his cigarette with the seductive and reassuring statement that there wasn't a "cough in a carload." But a government agency interested in the conduct of advertisers didn't agree, stating there were a number of coughs in less than a carload. Therewith, a "cease and desist" order was issued.

With all the medical reports and mounting evidence connecting the incidence of lung cancer to cigarettes, the tobacco industry, in defense, came up with the filter tip. As in all controversial questions, opinions differ regarding the effectiveness of filters. For myself, I'm inclined to accept the report of Dr. Ernest L. Wynder, July 19, 1957, of the Sloan-Kettering Institute of Cancer Research, which appeared in U. S. News and World Report, July 26, 1957. According to the

report, recent laboratory tests indicate that the majority of filtered cigarettes on the market have a tar and nicotine content that is as high as, if not higher than that of unfiltered regular sized cigarettes. This is current, despite the fact that the amount of tar (cancer causing) in cigarette smoke can be controlled without further delay with the knowledge about filters and types of tobacco already at hand. The U. S. news and world Report added.

"Dr. Wynder gave an extensive review of the accumulated statistical and laboratory evidence of cigarette smoking as the primary cause of lung cancer. He also summarized the evaluation of the evidence by responsible organizations such as the public health services of the United States, Great Britain, Sweden, and the Netherlands; the American Cancer Society and leading scientific journals. An American study group, convened at the request of the National Cancer Institute, National Heart Institute, American Cancer Society, and the American Heart Association, concluded that the sum total of scientific evidence established beyond reasonable doubt that cigarette smoking is a causative factor in the rapidly increasing incidence of human epidermoid carcinoma of the lung.

"The Medical Research Council of Great Britain summarized: Evidence from many investigations in different countries indicates that a major part of the increase is associated with tobacco smoking, particularly in the form of cigarettes. In the opinion of the Council, the most reasonable interpretation of this evidence is that the relationship is one of direct cause and effect. The identification of several carcinogenic substances in tobacco smoke provides a rational basis for such a causal relationship."

Despite the accumulation of evidence pointing the finger at the cigarette as a culprit in lung cancer, it is my opinion that—human nature being what it is—the production of cigarettes [400 billion this year] will continue mounting and the smoker will go puffing merrily on his way following the admonition of a daily radio commercial, "Don't miss the fun of smoking." It is my considered opinion that a large percentage of this year's 25,000 lung cancer casualties will be found among those who didn't "miss the fun of smoking."

The Relationship of Potassium Deficiency to Congestive Heart Failure

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In the past 10 years, several detailed studies of electrolyte and water metabolism in patients with congestive heart failure have presented incontrovertible evidence for potassium depletion in such patients. In most instances, data obtained during the phase of diuresis and recovery from heart failure, utilizing metabolic balance studies, isotope dilution techniques, or chemical analysis of skeletal muscle biopsies, have demonstrated a positive potassium balance. Reported potassium gains with recovery have ranged from 40 to 880 milliequivalents but the usual value has been between 100 and 200 milliequivalents. The potassium content of skeletal muscle biopsies obtained before recovery from heart failure usually was lower than normal but increased after recovery. Estimation of the total potassium deficit, based upon reported analyses and estimated lean body mass, gives a value of 200 to 300 milliequivalents and agrees fairly well with values obtained by balance or isotope dilution studies.

In the majority of cases, when the clinical response to therapy was good, potassium balance was positive. A poor clinical response usually was accompanied by a negative potassium balance. Exceptions to this generalization have occurred. Some patients with a good clinical response lost potassium; others, with a poor clinical response, gained potassium.

Analysis of cardiac muscle obtained at autopsy has corroborated the presence of potassium depletion in congestive heart failure. With one exception, all studies have reported a decreased potassium content in the myocardium of patients with congestive heart failure. In one series, the potassium deficit was greatest in the failing chamber,

a finding suggesting that potassium loss is an integral part of the cellular abnormality in myocardial insufficiency.¹

It is argued by some workers that the potassium deficit in heart failure is so small in some cases as to be clinically insignificant. However, available experimental techniques do not define the myocardial potassium content in the living animal and small deficits, if limited to the heart, would represent significant depletion. The finding of potassium depletion also is challenged because most of the reported studies were conducted on patients previously treated with digitalis, diuretics, and other measures which might have altered potassium balance. This is a valid criticism but studies on previously untreated patients also have demonstrated potassium depletion. Iseri and co-workers studied three patients with beriberi heart disease and treated them with vitamins and diet alone. All recovered from severe congestive heart failure and all gained significant amounts of potassium during recovery.² In a recent study of previously untreated patients, Jaenike and Waterhouse reported positive potassium balance in two of three patients treated with sodium restriction and digitalis.³ In another study, Iseri et al. found a diminished potassium content in skeletal muscle of untreated patients; a second biopsy performed after recovery showed a return of potassium content toward normal.⁴

The role of potassium depletion in the genesis of heart failure is unsettled at present. Harrison and co-workers, in 1930, suggested that potassium loss might contribute to the development of myocardial insufficiency⁵. This concept has gained some support from the observation that potassium depleted rats fed a low potassium-high sodium diet developed myocardial lesions, pulmonary edema, and congestive heart failure. Lesions similar to those seen in rats have been observed in patients who died from severe potassium depletion and in some of these cases, pul-

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While the Nutrition Committee of the Chicago Heart Association is sponsoring this article, the opinions expressed are those of the author and do not necessarily represent the official view of that committee.

monary congestion and edema were present. Cardiac lesions identical with those seen in potassium depletion have been produced by the administration of desoxycorticosterone acetate to rats and dogs, and similar lesions have been described in patients with Addison's disease who were treated with excessive amounts of this product.

Potassium depletion in normal man was accompanied by sodium retention in all instances, on a high sodium-low potassium diet, but heart failure was not reported. The magnitude of depletion was equal to or greater than that reported in congestive heart failure but symptoms ensued only when acidosis was superimposed upon the potassium deficit. Data from these various lines of investigation indicate that moderate potassium depletion, in an otherwise normal subject, does not produce heart failure; but more severe and prolonged depletion may result in heart failure. It is conceivable that moderate potassium depletion, which does not affect the function of the normal heart, may lead to myocardial insufficiency in an already diseased heart, but there is no direct evidence to support this hypothesis.

Several factors operative in congestive heart failure, such as anoxia, tissue acidosis, and undernutrition, are known to cause loss of tissue potassium. In addition, increased potassium excretion occurs as a result of increased renal tubular reabsorption of sodium with exchange of potassium for sodium. When sodium excretion is minimal, potassium loss by this mechanism may become large. Depletion of potassium occurs in many chronic debilitating illnesses, presumably because of disturbed cellular metabolism, and such metabolic abnormalities may contribute to potassium loss in heart failure. Diuretic therapy may produce additional potassium depletion. Although it often is stated that anorexia with reduced food intake produces potassium depletion, it is doubtful if dietary restrictions of this type can cause potassium depletion in an otherwise normal person. On the other hand, reduced potassium intake, plus increased potassium excretion, may account for sizable losses of potassium.

The clinical significance of potassium depletion in heart failure is debatable. Most observers agree that potassium supplements are useful in patients receiving frequent diuretic therapy but there is no agreement about the need for potas-

sium supplements in the management of milder degrees of heart failure. The relationship between potassium and digitalis is poorly understood but potassium depletion has been shown to increase the cardiotoxicity of digitalis. It is assumed by most clinicians that maximal therapeutic benefit is derived from the largest dose of digitalis that does not produce toxicity. However, when the administration of potassium reverses cardiac toxicity and permits administration of a still larger dose of digitalis, obviously, such a view must be reconsidered. There is some evidence that repair of a potassium deficit in the circumstances not only corrects digitalis intoxication but also increases the therapeutic value of digitalis. In a complex disease state, with as many uncontrolled variables as are found in heart failure, clinical impressions can be misleading, but it is probable that potassium therapy benefits patients with uncomplicated congestive heart failure. Not all patients show a better clinical response, but in those who respond favorably, improvement in muscular strength and myocardial reserve sometimes is striking. In addition, patients are seen occasionally who are unable to tolerate therapeutic doses of digitalis until supplements of potassium are given. For these reasons, routine use of potassium therapy in all but the mildest cases of congestive heart failure may be useful, provided renal failure with oliguria is absent.

Much remains to be learned about the role of potassium in congestive heart failure but the existence of potassium depletion in the majority of patients is well documented. Even though the significance of this finding is not understood, the gratifying response of some patients to potassium therapy is a strong argument for its use in the management of congestive heart failure.

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The Detection of Uterine Cancer in Women After 60

HOWARD I. GANSER, M.D., AND JOHN R. WOLFF, M.D., CHICAGO

THE detection of uterine carcinoma must be considered from two particular standpoints: First, what can the physician do in the way of specific tests to reveal the presence of cancer? Second, how can we get the geriatric patient to submit to examination and then to treatment for an apparently asymptomatic condition? This latter proposition is two-sided, for usually she does not present herself early enough for examination and she does not permit her physician to follow through with the indicated treatment. Many physicians do not use the available routine screening techniques and are unable to convince their patients of the seriousness of lesions that could conceivably be precancerous.

In a previous communication¹ based on the work at the Cancer Prevention Clinic of Chicago, it was reported that 35 per cent of presumably well geriatric women had a presenting pelvic complaint; in response to specific questioning, 76 per cent had some pelvic discomfort, and 93.3 per cent had some pelvic finding on examination. It would seem from these figures that postmenopausal women either hesitate to present themselves for regular examinations or become accustomed to minor pelvic discomfort. We might take advantage of our knowledge of these statistics to urge the patient to undergo more frequent pelvic examinations.

A review of the work done at the Cancer Prevention Center reveals that for the calendar year 1955, 4,709 females were examined. Of these, 160 were suspected of having uterine cancer. The suspicion arose for one of three reasons:

1. Cervical lesions in seven.
2. Uterine enlargement in three.
3. Grade three, four, or five cytologic smears in 59.

Hence, 43.15 per cent of all suspect patients

in the Cancer Prevention Clinic were classified as possible carcinoma of the uterus.

In a review of 100 cases of women over 60, 23% had had a complete examination within one year;

15%	2 years;
8%	3 years;
5%	4 years;
9%	5 years;
11%	between 6 and 10 years;
2%	between 10 and 15 years;
26%	not for over 20 years.

The longest interval between examinations was 27 years. One patient did not remember the time of her last examination. Of these patients, 57 had seen a physician within 12 months, and an additional 18, within 12 and 24 months. Hence, 75 per cent—being essentially well people—had presented themselves to a physician within a reasonable length of time, but in only 27 cases did the patient receive a complete physical examination.

The medical clinics that operate for teaching purposes always give their patients a complete examination before directing them to the particular section that is to manage their complaint, or they may rotate the patient through a diagnostic clinic where a series of special examinations are carried out after only a cursory physical examination for observation of the vital signs. In either case, the individual gets a complete examination. In the case of a patient who is too well off to avail herself of this kind of service but feels she cannot afford to pay for it on a private basis, the physician may have difficulty in convincing her that she should undergo certain tests the results of which will enable him to assure her she is in good health.

To illustrate the importance of these tests, I should like to cite a report by Ayre² in which he says that prior to the introduction of the cervical cytologic smear, the diagnosis of intra-

*From the Cancer Prevention Center
Presented before the 117th Annual Meeting, Illinois
State Medical Society, Chicago, May 21-24, 1957.*

epithelial carcinoma of the cervix was a pathological curiosity. Now, however, this lesion is revealed in 1 per cent of 1,000 apparently healthy women in industry and 3 per cent of clinic patients suffering from pelvic inflammatory disease or menorrhagia.

In our follow-up of three cases of Grade 3 cytologic smears, in two instances the physician did nothing, and in the third the follow-up of the patient with a history of treated carcinoma of the cervix was unsatisfactory because she was a transient. In three other instances, where a cervical polyp was diagnosed, our follow-up revealed that in two cases the patient refused to permit removal of the lesion, and in one case the lesion was removed and the cervix biopsied to reveal the absence of cancer. From the foregoing, it is clear that many times the physician is unable to follow through with definitive treatment of asymptomatic lesions.

With reference to our first consideration—that is, what can the physician do in the way of specific tests to reveal the presence of cancer—the examination should include local examination of genitalia, with special emphasis on the appearance of the external genitalia to note such lesions as leucoplakia, kraurosis vulvae, and tumors of the skin. The appearance of the cervix is important. A special evaluation of the epithelialization of the cervix may be obtained by the use of the Schiller test, which will show up many lesions that are otherwise poorly differentiated from the surrounding tissue and aid in pinpointing areas from which a biopsy should be taken. A cytologic study of the vaginal pool and cervical secretions usually is taken prior to the Schiller test. Following this, a bimanual examination should be accomplished with the bladder and bowel empty, with particular attention paid to the size and mobility of the uterus and the presence of any adnexal masses. In postmenopausal years, it is our policy to recommend dilatation and curettage for any history of bleeding, whether or not accompanied by findings.

We should like to emphasize the importance of the vaginal smear. In examination of 500 patients with some cervical lesion, Daro, Rubenstein, and Gollin³ at Cook County Hospital found that in 43 cases of squamous cell carcinoma, error existed in 9.3 per cent of biopsies and in only 4.6 per cent of cervicovaginal smears but,

by using both methods, there was only 1.7 per cent of error. It is also significant that in this study, 44 per cent of the lesions were Stage 1 carcinoma. This is much higher than the usual incidence, in other studies, of 1.3 to 15 per cent of Stage 1 as compared with more extensive involvement. This emphasizes the fact that cervical carcinomas are being found earlier, when they are more amenable to treatment. Graham and Meigs⁴ reported that in seven patients in whom recurrent carcinoma was first detected by vaginal smear, pelvic examination showed no disease. The interval between the positive smear and the positive biopsy varied from four to 31 months, the average being 14½ months. They state, "The cytologic method of diagnosing cancer enables recognition of recurrence long before it is apparent clinically."

This is of importance in our survey work since, although the Cancer Prevention Clinic is a well patient clinic, there have been several instances in which a patient previously treated for carcinoma of the cervix was seen in our clinic. This probably occurred because her primary treatment had been accomplished in some distant city, but surely anyone treating a carcinoma should assume responsibility for the follow-up, since treatment cannot be said to be completed prior to death of the patient. However, in one of our cases, Mrs. M. R., aged 61, who was treated by an abdominal hysterectomy two years before in a distant city, we found successively on two occasions Grade 4 and Grade 5 vaginal smears. Upon examination it was noted that there was a small mass at the top of the vagina which bled easily. She was referred to a physician for treatment. He diagnosed carcinoma of the cervical stump or vagina, secondary to endometrial carcinoma, and instituted radiotherapy. Although she had been referred to a physician in Chicago, it had been one year since she had consulted him.

The vaginal smear studied with regard to the sensitivity reaction and the radiation response may be of importance in evaluating a case of cervical carcinoma for treatment. Although this method is not in general use, it is our feeling, since it is reported from an outstanding center for study of carcinoma in this country and independently from England, that ultimately it will result in a far better selection of cases for treatment by surgery or irradiation. Graham and Graham⁵ at Massachusetts General Hospital re-

port that in 62 patients with a good sensitivity response of over 75 per cent, there was a five year survival of 59 per cent, whereas in 63 patients with a poor sensitivity response, there was a five year survival of only 3 per cent.

SUMMARY

Too many geriatric women are not having complete physical examinations. From the gynecological standpoint, this should entail a minimum of pelvic examination plus a screening smear. These examinations have increased the finding of the early lesions and are valuable in following treated cases of carcinoma of the cervix.

If a physician cannot equip himself to carry out these examinations, he owes it to his patient to refer her annually to someone so equipped. Familiarity with the incidence of carcinoma of

the cervix and the fundus in elderly women should serve to awaken the physician to the seriousness of this problem, and hence enable him better to convince his patient that treatment is necessary, albeit the lesion is asymptomatic.

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The rights of the dying

“At least, do no harm”—the traditional motto of our profession—seems like an expression of defeatism. It might be thought that the followers of a calling with aspirations as high as those of medicine ought to have a nobler watchword. Yet many a practitioner in every generation has been kept from a false step by this admonition to avoid rash procedures that might leave the patient worse off than before.

Our training and experience must indicate the time when our patient has reached the end of his useful life. To determine this time is not easy, and when the doctor recognizes this point in the

career of his patient, he must not be stampeded. This is not the occasion for the use of drugs which keep metabolism going when all else that we think of as life is lost. When a neoplasm is hopelessly advanced and all is gone except mere physical existence, we ought to be careful about the use of such agents as ionizing radiation which might preserve the shell of a human being. We need not use extraordinary efforts to keep up a part of life when the greater part of it cannot be preserved. We should be mindful of the possibility of preserving only the ability to suffer more. In this light the ancient injunction to do no harm, at the least, seems well worth preserving. *Editorial. Rights of the Dying. Pennsylvania M.D. Aug. 1958.*



Lymphangiosarcoma, Late Complication of Mastectomy

ROBERT J. PATTON, M.D., F.A.C.S., SPRINGFIELD

TEN years ago Stewart and Treves¹ first described a highly malignant vascular tumor that arose in the swollen arms of women who had been treated by radical mastectomy for cancer of the breast. At the present writing, only about 30 cases have been reported in the British and American literature.

R. H., age 75, a white widow, was seen on November 27, 1956 because a bruise near her left elbow had persisted for seven weeks following mild trauma. She had undergone left radical mastectomy for scirrhous carcinoma of the breast with axillary metastases 16½ years previously. Healing was uneventful, and X-ray therapy was delivered to the customary fields with moderate skin reaction. She returned to work seven weeks after operation. Lymphedema of the arm developed within a few weeks and persisted thereafter with occasional episodes of erysipeloid infection.

Examination: The mastectomy scar was soft, shoulder motion was unrestricted, there was no evidence of local recurrence nor metastasis of the breast cancer. Moderate edema was present in the entire upper extremity. Near the elbow on the ulnar aspect of the forearm was a 2 cm. hemispherical, dark, purplish, rubbery tumefaction arising within an indurated and ecchymotic

appearing area about 5 cm. in diameter. Biopsy was performed.

The pathologist's* report was as follows: "The histologic preparation is a skin tissue with a region of hemorrhage and markedly cellular tissue within the dermis. This involves the superficial portions of the dermis as well as the deeper lying portions of the dermis and probably also the subcutaneous fat and fibrous tissue. The cellular tissue apparently is forming small vessels and is entirely compatible with angiosarcoma. The individual neoplastic cells are atypical. They have large nuclei, scanty cytoplasm, and prominent—often multiple—nucleoli. Mitotic figures are observed occasionally. On the basis of the present slides, I cannot be sure how much is lymphangiosarcoma and how much is hemangiosarcoma."

Six days following biopsy a 2 x 4 cm. telangiectatic area appeared in the apex of the axilla, and three copper-colored, cutaneous nodules, each about 1 cm. in diameter, were detected near the wrist. The induration about the biopsied tumor was nodular and had extended distally on the forearm. A chest roentgenogram was normal.

Forequarter amputation was suggested but on the basis of the poor results of such procedure

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in the then reported 17 cases, the patient elected to undergo intensive X-ray therapy.

Five weeks following biopsy the entire extremity was larger and was discolored greenish-yellow. Numerous purplish, nodular areas had appeared on the hand, forearm, arm, and shoulder, and several on the left chest wall. One month later, despite continued irradiation, the extremity was studded with such lesions, additional nodules appeared on the chest wall, and analgesics were required in increasing amounts to control pain in the arm. There was minimal discharge of serum from the larger nodules. Two months after irradiation was commenced there was obvious shrinkage and drying of the primary tumor, and most of the satellite lesions disappeared, some leaving firm, tan nodules. Edema diminished.

After seven months of continued treatment with progressive improvement in the arm, she developed additional tumors in the right fourth costal cartilage and right gluteal region, the latter causing disabling sciatic pain. Biopsy was not performed. Intensive irradiation to these larger tumors was beneficial but did not control the sciatic pain. Except for the receding tumor of the costal cartilage, roentgenograms of the chest and pelvis remain normal. The patient is partially confined to bed.

The fact that lymphedema preceded the appearance of this vicious neoplasm warrants mention of the current opinions as to the cause of swelling of the arm after mastectomy. The incidence is variably reported to be from 10 to 80 per cent of patients who undergo the standard radical mastectomy. In a recent review of 768 cases of primary operable cancer of the breast, Treves² studied 319 (41 per cent) who developed swollen arms. He concluded that: (1) preoperative roentgenotherapy, when followed by operation, appeared to be associated with an increased incidence of lymphedema, though this did not obtain if operation was not performed; (2) obesity probably is a predisposing factor; (3) the extent of axillary involvement alone did not account for the occurrence of lymphedema; (4) infection of the wound or (5) delayed healing—either considered alone—was not responsible. This is at variance with the opinion of Haagen-sen³ who considers infection to be the predominant etiologic factor. Venous block in the dissected axilla has been alleged to cause edema, but

venographic proof has been inconsistent. Awaiting more satisfactory methods of study is the possibility of anatomic variants causing inadequacy of residual lymphatic channels following extensive axillary dissection.

It is then, in these patients already afflicted with a complication of surgery, that a new and overwhelming neoplasm develops. In the series of 26 lymphangiosarcomas recently summarized by Herrmann and Gruhn⁴ the onset of the disease occurred between the ages of 44 and 77 years, and the mean interval between mastectomy and onset of lymphangiosarcoma was 10.5 years; the shortest interval was five years. A case reported subsequently by Birge et al.⁵ relates an interval of only 16 months between mastectomy and appearance of the fatal tumors in the arm.

Clinically, the reported cases are surprisingly uniform in certain characteristics. All occurred in women, most of whom had survived radical mastectomy for carcinoma long enough to have had hopes for cure. All had developed swelling of the homolateral arm as a complication of treatment. The onset of the neoplasm in the arm was preceded by trauma in a minority of cases; rather, the appearance of the tumor was usually insidious. At, above, or below the elbow a reddish-purple area of discoloration in the skin was followed by a central nodule, often raised and rounded. Satellite nodules soon occurred, and there often was explosive spread of the disease to involve the skin of the entire extremity and neighboring chest wall. Progressive metastatic disease chiefly involving the lungs was the cause of death in the great majority. Survival was brief in most cases. Two patients survived more than three years following interscapulothoracic amputation. The longest survival noted was over five years in a case reported by Southwick and Slaughter⁶ which was treated by irradiation. On the basis of a previous report that the disease was limited to the skin and subcutaneous tissue, Morfit⁷ performed excision of these tissues from the entire extremity covering the muscles with skin grafts in two patients, but invasion of the deep fascia had occurred and the ultimate results were unsuccessful.

The histologic descriptions of the tissues removed have been similar. Conclusions as to the precise origin have been in doubt, more particularly in the more recently reported cases. Suffice it to say there is common agreement on the

angiosarcomatous nature of the neoplasm, but whether lymphatic vessels or blood vessels or a combination of the two are involved is disputed. Some authors have likened the histologic pattern to certain phases of Kaposi sarcoma which occurs predominantly in the lower extremities of males of Jewish or Italian origin, but this opinion is not uniformly shared. Other authors consider the probability of blood vessel elements because of the presence of erythrocytes in the spaces lined by endothelial cells. This may not be a logical conclusion since diffuse hemorrhage is characteristic both clinically and microscopically. The presence of blood in such a space does not prove that a functioning vessel is represented. More likely, a functioning vessel has been eroded by the neoplasm. McCarthy and Pack⁸ suggest that in vitro tissue cultures may be required to differentiate certain of the angiosarcomas. Our sections, limited to the biopsy material, are insufficiently comprehensive to arrive at a positive conclusion.

Whereas elephantiasis chirurgica following mastectomy for cancer is the characteristic setting for the development of the tumor, there remains the possibility of a circulating carcinogenic factor acting in an area of altered physiology. It is likely that the disease has occurred much more frequently than reports would indicate and that the neoplasm in the arm has been assumed to be recurrent carcinoma from the breast.

Martorell⁹ reported an atypical case occurring in the leg of a woman who had developed lymphedema following operation for fracture of the femur. A woman with bilateral spontaneous edema of both lower limbs was reported by Aird, Weinbren, and Walter¹⁰ to have developed angiosarcoma in one limb only. The common denominator seems to be chronic lymphedema.

SUMMARY

A case is presented in which a malignant vascular tumor arose in an arm that became chronically swollen following radical mastectomy and irradiation for cancer. Treatment by intensive X-ray therapy resulted in apparent arrest of the neoplasm in the arm. After 19 months, distant tumors, presumed to be metastatic, were under treatment.

The difficulty in accurate histologic classification is mentioned.

X-ray therapy probably offers the greatest hope in treatment unless the nature of the disease is recognized early enough for radical amputation.

Death occurred on August 1, 1958. Autopsy disclosed no mammary carcinoma. Angiosarcoma had metastasized to right 4th rib, both gluteal areas, and presumably to the brain—where a large focal necrotic area was found—but histology was inconclusive. No pulmonary metastases were found. Bilateral renal atrophy due to abdominal aortic aneurysm and severe stenosing coronary atherosclerosis were additional findings.

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Septic Thrombophlebitis of the Leg With Mural Endocarditis and Pulmonary Embolism

EDWIN F. HIRSCH, M.D., CHICAGO

A white housewife aged 60 years entered St. Luke's Hospital in the care of Doctors O. Julian and W. Dye on June 19, 1957. She had had pain in the left leg and calf for four days with swelling, hyperemia and increased warmth of these tissues. Some relief was obtained by elevation of the leg. Six months before admission she had had other episodes of pain in the left leg but of short duration, and in April 1957 she had had a severe pain in the left chest which radiated into the left arm.

Her blood pressure was 130/84 mms. Hg., the pulse was 78, and the respirations were 20 per minute. The heart rhythm was regular; there were no murmurs or thrills. The abdomen was soft; the viscera were normal by palpation. The left leg below the knee was painful, moderately edematous and warm. The blood had 12.6 gms. percent hemoglobin, and 5,550 leukocytes per cu.mm. with 39 percent lymphocytes, 6 monocytes, 51 percent polymorphonuclear leukocytes, 2 percent eosinophils and 4 percent band cells. The hematocrit was 35 percent. Roentgen films of the chest on July 1, 1957 had no evidence of old or active disease of the lungs. An abnormality

in an electrocardiogram was interpreted as "heart strain".

Heparin therapy was started on June 19, 1957. On the 29th she was dyspnoeic, her pulse was 102 and the respirations were 24 per minute. On July 7th she had severe dyspnoea; her pulse was 98 per minute and her blood pressure was 98/64 mm. Hg. On July 9th at 2:00 A.M. she became markedly dyspnoeic. Supportive therapy and oxygen were given but she died shortly after.

The essential portions of the anatomic diagnosis of the complete necropsy are as follows:

Huge hemorrhagic infarct of the middle and lower lobes of the right lung;

Extensive embolic obturator thrombosis of the right and left branches of the pulmonary artery;

Extensive mural thrombosis of the right ventricle, auricle and auricular appendage of the heart;

Thrombophlebitis of the left femoral vein; etc.

The symmetrical well nourished body of this adult white woman weighed 140 pounds and was 157 cms. long. There were two repaired short venesection wounds of the left upper arm near the shoulder, another over the medial malleolus of the right ankle and multiple needle puncture wounds of both antecubital fossae. The viscera

From the Henry Baird Favill Laboratory of Presbyterian-St. Luke's Hospital, Chicago, Illinois.

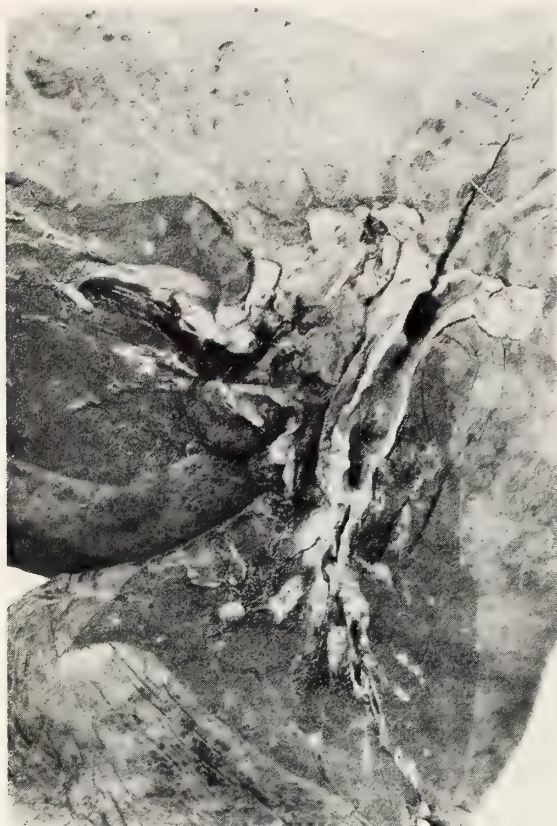


Figure 1. Photograph illustrating the embolic thrombosis of the right branch of the pulmonary artery with infarction of the right lung.

and other anatomic structures of the abdomen had no noteworthy changes. The body of the uterus had several small subserous fibromyomas. The lungs were moderately expanded; there were no adhesions with the chest, a small collection of fluid was in the left pleural space.

The pulmonary artery was opened from behind. Wedged into the lumen of the right branch of the pulmonary artery was a molded gray and red blood clot embolus 4 cm. long and 2 by 1.5 cm. in diam. Another in the left branch was 5.5 cm. long and 2 to 2.5 cm. in diam. The right lung weighed 700 gms. and had many subpleural hemorrhages. The posterior half of the middle lobe and a region 11 by 9 cms. in the posterior and base portion of the lower lobe had dark red infarcts. Branches of the pulmonary artery (Figure 1) to these segments of the lung were occluded by a gray red adherent thrombus. The left lung weighed 330 gms. The posterior portions were hyperemic but not solid. The lumen of the left branch of the pulmonary artery and of the divisions in the lung (Figure 2) was filled



Figure 2. Photograph illustrating the embolic occlusion of the left branch of the pulmonary artery.

with a molded gray-red, loosely adherent thrombus. The heart with 4 cm. each of aorta and pulmonary artery weighed 440 gms. Attached in the meshes of the lining of the right ventricle of the heart were multiple gray thrombi 2 to 4 cm. in diam. and others were attached to the lining of the right auricle and its auricular appendage (Figure 3). The leaflets of the pulmonic and tricuspid valves were thin. The lining of the left side of the heart was smooth. The leaflets of the mitral and aortic valves had no significant changes. Surfaces made by cutting the myocardium of the septum and of the lateral wall of the left ventricle were brown, fibrillar tissues with cloudy swelling but without infarcts. The lining of the coronary arteries had moderate fatty changes. The hard, elastic and hyperemic kidneys weighed 180 and 200 gms. Excepting a nephrosis there were no changes (Figure 4). The hyperemic spleen weighed 200 gms., and the hyperemic liver 2150 gms. (Figure 5). The gastrointestinal tract had no significant changes except two small polyps in the sigmoid colon.

An adherent gray and red obturator thrombus filled the left femoral vein from the level of the

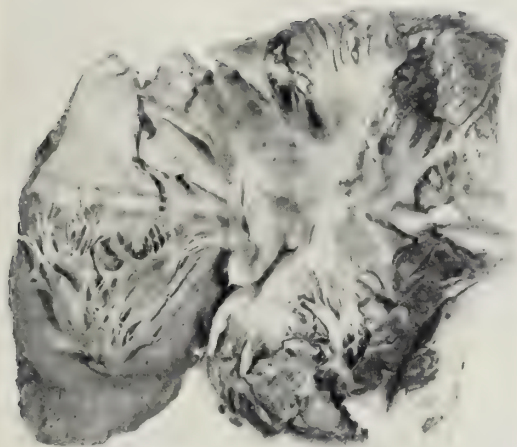


Figure 3. Photograph illustrating the mural thrombi of the right auricle, auricular appendage and ventricle of the heart.

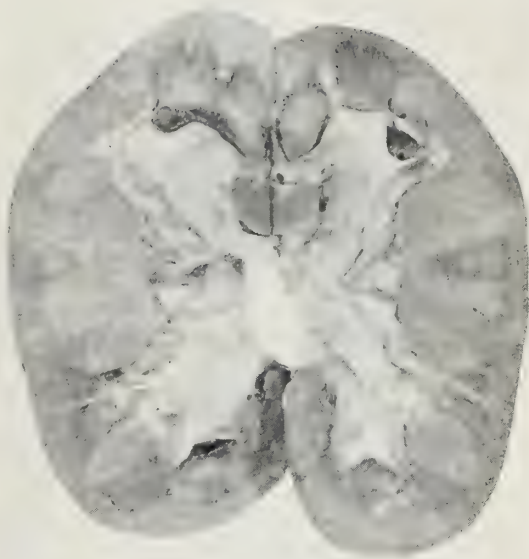


Figure 4. Photograph illustrating the parenchymatous changes of the kidneys.

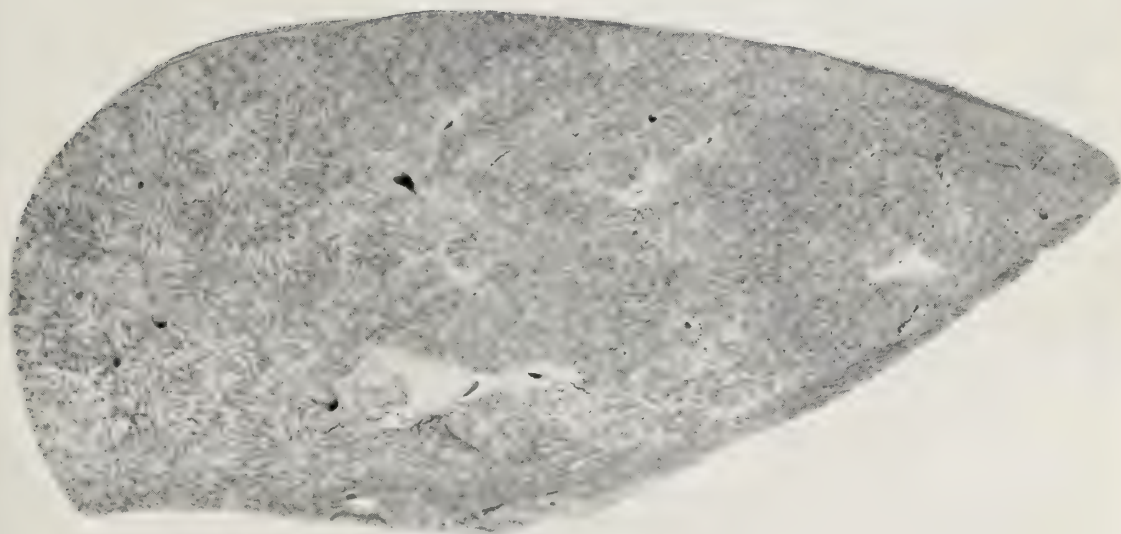


Figure 5. Photograph illustrating the chronic passive hyperemia of the liver.

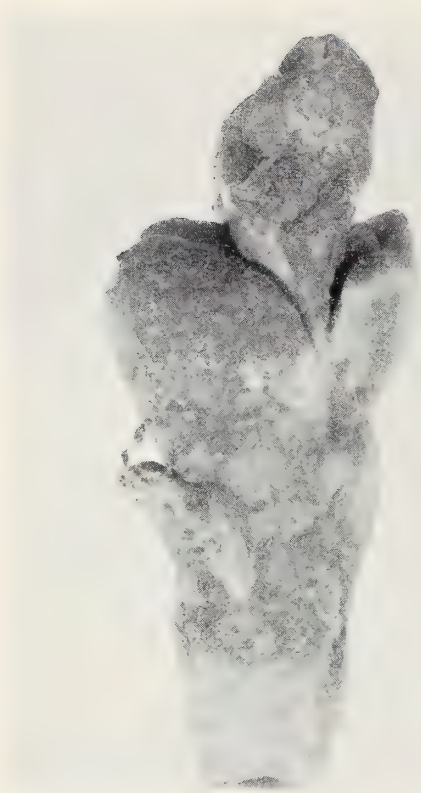


Figure 6. Photograph of a portion of the thrombus in the left femoral vein.

Poupart's ligament into the upper thigh level (Figure 6).

Cultures of the pericardial and pleural fluids and of a thrombus of the left ventricle of the heart yielded beta-hemolytic streptococcus.

The brain weighed 1270 gms. There were no unusual changes or significant tissues in the cranium or in the structures of the neck.

COMMENT

The chronic thrombophlebitis of the left leg of this patient was associated with a beta-hemolytic streptococcus infection. The endocardium of the right auricle and ventricle of the heart became infected secondarily and mural thrombi formed in the lining of these chambers of the heart. Emboli from these thrombi and from those in the left femoral vein were transported by the circulating venous blood into the lungs. Sudden death occurred when the pulmonary circulation was obstructed by these emboli. The clinical and anatomic details mentioned in this report describe a series of complications of a septic thrombophlebitis of the left leg in which a septic endocarditis of the right auricle and ventricle of the heart occurred, and terminally, pulmonary embolism.

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Small talk

Listened to an argument between two of the gentlemen who conduct the destinies of this paper, over a story which referred to doctors as "medics." One denounced the word as barbarous and illiterate. The other defended it, on the ground that it's needed. "The word 'physicians' is passing," he said. "A 'doctor' can be anybody from a Ph. D. in agronomy to a tattoo artist."

Well, it's a good point. Doctors of medicine tend more and more to refer to themselves by their specialties, and I was gently corrected the other evening when I introduced a bone-setter

as a doctor. He said that he preferred to be called an orthopod. An odd preference. It sounds like some kind of spidery invertebrate. The custom runs into rough water when it comes to dealing with otolaryngologists.

Such words as "croaker" and "sawbones" obviously are less acceptable than "medic" or "medico," and the late H. L. Mencken's term for physicians—he called them resurrection-men—would provoke protest.

All right, how about the ancient and honorable term "leech?" *Ernest Tucker. We're Out of Words. The Chicago American, Oct. 28, 1958.*



Surgery of pulmonary tuberculosis

Under current concepts of management, pulmonary tuberculosis is treated by antibiotics and chemotherapeutic agents. Surgery is called upon to handle residuals of lung destruction that cannot or do not respond to these agents, threatening the patient's ultimate security. The ideal time for surgical intervention is when this form of treatment can be seen to be necessary and when chemotherapeutic control is achieved.

Demonstrable residuals may take several forms. Open cavity is the most obvious surgical target. It is vigorously debated whether or not such cavities actually can heal while remaining clearly open. Until proof of such occurrence is more certain, and our ability to recognize this phenomenon more definite, open cavities remain obvious targets for surgical intervention.

Cavities that are filled or, for that matter, areas of focal necrosis that remain and are of reasonable size (1-1½ cm.) may well be surgical targets. This is particularly true if such lesions tend to conglomerate and present a more impressive volume in their aggregate than they do singly.

Bronchiectasis is another frequently encountered lesion following a rather severe tuberculous process. Its importance may be debated, but it should be considered the sequel of widespread lung disease. It can be regarded as the anatomical expression of lung that has been ravaged by tuberculosis. It is irreversible in nature and is not amenable to control by collapse measures.

The condition forms a point of insecurity, tending to make recurrence or exacerbation likely when chemotherapeutic control eventually is lost.

Carnification due to organization of pneumonic exudates with shrinkage and its counterpart — compensating emphysema — all occur in varying admixtures, independent of any consideration of direct bronchial disease. These manifestations are likewise an indication of a severe process.

Current philosophy has swung completely to resection of the areas of involved lung and away from collapse measures. The availability and effectiveness of the chemotherapeutic agents brought this about. Resection of a tuberculous lung or portion thereof could not be carried out with any reasonable degree of success prior to the advent of chemotherapy except for cases of quiescent disease and this only occasionally.

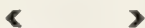
Collapse, on the other hand, could be carried out without such protection and was eminently successful. The clean excision of the anatomical residuals of tuberculous disease is a far better approach to management than the "entombment" of these residuals by collapse such as thoracoplasty.

Since excision cannot always be carried out and for a variety of reasons, a choice of procedures is to be considered. The indication is for resection except when the anticipated amount of lung tissue requiring resection exceeds that which the candidate's cardiorespiratory reserve

will permit without crippling, or when, because of inadequate control of the tuberculous disease by chemotherapy (bacterial resistance to all agents), the safety of resection is doubtful. In the circumstances, some form of collapse is in order. Patent, cavernous disease without significant associated bronchiectasis located above the 5th rib posteriorly offers the best prognosis under collapse. Nodular disease, bronchiectasis, or cavitary lung are relatively unaffected by collapse. Collapse in the present era means thoracoplasty. This must take the form of a standard seven rib posterolateral extrapleural resection of ribs of the Alexander type, usually performed in stages, or a one stage extraperiosteal separation of a selected area of lung with filling by prosthesis.

At the Chicago State Tuberculosis Sanitarium, between January, 1954 and July, 1957, we have carried out 423 operations for pulmonary tuberculosis. The mortality rate has been 3.7 per cent for pneumonectomies and 1.7 per cent for lobectomies. Our morbidity in terms of surgical complications can be expressed as 5.2 per cent. Relapses have occurred infrequently, amounting to approximately 3 per cent of the surgical patients treated. It must be remembered that many of these patients are far advanced initially and their longevity — with freedom from tuberculosis — is short from the outset. It also must be pointed out that even relapses may be re-treated with a successful outcome on occasion. These results have been published elsewhere.

Hiram T. Langston, M.D.



Vandalia physician named Illinois GP of the year

Dr. Mark Greer of Vandalia has been selected by the Illinois State Medical Society as the "Outstanding General Practitioner of Illinois for 1959."

The selection of Dr. Greer was based on 44 years of distinguished service as a physician and community leader. Largely through his efforts, Vandalia and Fayette County have been provided a modern hospital, a model community school, and public and youth recreational facilities. A plaque emblematic of the honor will be presented to him at the annual meeting of the Society in Chicago next May.

Dr. Greer, affectionately known as "Doctor



Mark Greer, M.D.

Mark," was born March 21, 1889, at St. Paul, Fayette County, Ill. He was delivered by his father, Dr. George Greer, who began the practice of medicine there in 1872.

The younger Dr. Greer obtained his M.D. degree from the University of St. Louis in 1913, and began practice in Vandalia the following year. He served as a captain in World War I and was awarded the British Military Cross.

Upon his return home after the war, he resumed practice in Vandalia. The nearest hospital being 30 miles away in Pana, Ill., he opened one in Vandalia in 1925. This, the first in Fayette County, was expanded in 1937 to a 35-bed institution.

When this became inadequate to serve the community he became the moving spirit in raising funds for the \$1,500,000, 103-bed Fayette County Hospital, Vandalia, although this would put his privately owned Mark Greer Hospital out of business. The new hospital, opened in 1955, won a national magazine's award as "The Modern Hospital of the Year."

An investment in potential oil royalties in Fayette County in the late 1930's proved fortunate. He used profits from oil to establish better

health, educational, and recreational facilities in Fayette County.

He served as a member of the Vandalia High School and Grade School Board of Education for 25 years, including 15 years as president. He was largely instrumental in the building of the \$1,500,000 Vandalia Community High School, considered to be one of the finest in the state, by contributing 20 acres of valuable land within the city for the site.

In 1953, he gave an adjoining 12 acres for a swimming pool, baseball grounds, and park. That year, he also gave 200 acres of rolling, wooded land four miles north of Vandalia for a Girl Scouts camp, now one of the best in Illinois.

Dr. Greer, as an active member of the Vandalia Chamber of Commerce since 1914, has spearheaded movements to bring new industries to the city.

Since 1947, he has been a member of the Advisory Hospital Council of the Illinois Department of Public Health which has guided the department in a \$150 million statewide community hospital construction program.

Dr. Greer is a member of the Fayette County Medical Society, Illinois State Medical Society, American Medical Association, the Southern Illinois Medical Society, and the Illinois State Surgical Society. He has been president of the Fayette County Tuberculosis Sanatorium Board for the last 12 years.

He is a Shriner, Moose, charter member and past commander of the Crawford-Hale Post of the American Legion, and past president of the Vandalia Country and Golf Club.

Dr. Greer is a member of a medically-minded family. Besides his father, who practiced in Fayette County for 46 years before his death in 1918, two uncles on his father's side were physicians. A brother, Dr. Miller Greer, is associated with him in Vandalia. Another brother, the late Dr. Frank Greer, was a dentist.

His wife, a sister, and a daughter are registered nurses, all graduates of the Presbyterian Hospital School of Nurses, Chicago. The daughter also is married to a physician, Dr. David Rendleman of Anna, now serving a four year residency at the Presbyterian-St. Luke's Hospital, Chicago. Dr. and Mrs. Greer also have another married daughter, Mrs. David Baue of St. Charles, Mo.

Diagnostic classification

At the recent convention of the American Roentgen Ray Society, Dr. Ernest E. Aegeter took his colleagues to task for not being too careful about what they called bone tumors. Osteosarcoma is the most common malignant bone tumor in the young age group and the mortality is appalling. About two-thirds of these lesions occur in adolescents, usually in the long bones of the extremities. On the other hand, chondroblastoma is overdiagnosed and overtreated, generally by amputation whereas simple curettage would cure this benign tumor. Chondrosarcoma is more common after age 30 and grows less rapidly than osteosarcoma. The prognosis, after complete resection, is somewhat better than with osteosarcoma.

Dr. Aegeter questioned the diagnostic classification — "giant cell" tumor. The presence of giant cells does not necessarily mean that a giant cell tumor exists. The condition once was considered sarcoma, then benign tumor, and finally benign, with 10 per cent falling into the malignant category. He asked, "Could it be that there is no such entity as giant cell tumor of bone? Has it been but a name for a nonspecific reaction of bone to either or both neoplastic and nonneoplastic agents?" He advocated more teamwork between the orthopedist, the radiologist, and the pathologist in diagnosing bone tumors.



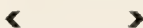
Aimed at the press

At the Sixth Annual Antibiotic Symposium, so many news releases were handed out by pharmaceutical companies the meeting appeared to be aimed at the press rather than at the medical profession. According to the FDC reports, product superiority was stressed. Six companies provided the symposium pressroom with at least 22 news releases; two companies held news conferences with the press; and other manufacturers had representatives at hand to answer the news reporter's questions. It was a scientific PR showcase, because no new major market products were unveiled. There were 21 scientific papers on Kantrex, which also was the subject of Bristol's news conference.

Antibiotic research has established the fact that the older products are doing an adequate job in most susceptible illnesses. However, many pharmaceutical houses have aimed their big guns

at the resistant staphylococcus and the panel discussion on "The Current Status of Erythromycin, Kanamycin, Novobiocin, Oleandomycin, Ristocetin, and Vancomycin, with Particular Reference to their Use in Staph Disease," was the liveliest part of the program.

When a panel of prominent physicians was asked to pick the drugs of choice against resistant staphylococci, the order of preference was as follows: Lilly's vancomycin (Vancocin); Abbott's ristocetin (Spontin); and Bristol's kanamycin (Kantrex). These are basically prestige products because they do not have a tremendous market potential; they must be administered hypodermically and have a narrow spectrum of use.



The kidneys and polycythemia

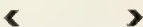
Many cases of polycythemia are associated with hydronephrosis and hypernephroma. A recent report by Gardner and Freymann¹ describes removal of a kidney followed by a return to normal of the red blood count and hemoglobin.

This is in keeping with the proposal of L. O. Jacobson et al.² at the University of Chicago that the kidneys might be the major source of erythropoietin. In such instances, the diseased structure becomes overactive and produces polycythemia. In all cases of this syndrome in which nephrectomy was successful, polycythemia disappeared only to recur with metastasis in cases with cancer.

The authors recommend a careful evaluation of the retroperitoneal area in patients considered to have polycythemia vera, particularly in those without leucocytosis, thrombocytosis, or splenomegaly.

1. Gardner, F. H., and Freymann, J. G.: Erythrocythemia (Polycythemia) and Hydronephrosis, *New England J. Med.* 259:327 (Aug. 14) 1958.

2. Jacobson, L. O.; Goldwasser, E.; Fried, W.; and Pizak, L.: Role of Kidney in Erythropoiesis, *Nature (London)* 179:633, 1957.



Secretaries' conference is held in Springfield

The annual Secretaries' Conference of the Illinois State Medical Society was held in Springfield, October 26. There was a representative attendance of county secretaries and other of-

ficers from all parts of the state. Dr. Newton DuPuy, Quincy, presided.

Dr. Raleigh C. Oldfield, Oak Park, president of the Society, welcomed the participants and said that the meeting was for the purpose of helping county medical societies in the planning of their activities. Dr. Burtis E. Montgomery, Harrisburg, chairman of the ISMS Council, presented the greetings of the Council.

The coroners' law was explained by Dr. Edwin F. Hirsch, president of the Chicago Medical Society.

Dr. Edwin S. Hamilton, Kankakee, member of the Council of the World Medical Association, told about the operations of the WMA. Dr. Hamilton also reported on the changes in the Medicare program.

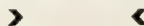
Mr. C. Joseph Stetler, Chicago, director of the AMA law department, spoke on the growing need for medical-legal co-operation. How to map a successful state legislative program was told by Mr. Walter L. Oblinger, Springfield, associate council for the ISMS.

Dr. Harold M. Camp, Monmouth, secretary of the ISMS, explained the operations of the Monmouth and Chicago offices of the Society. Dr. Camp also announced that special recognition was to be given to all county and branch society secretaries who have served in that capacity for 10 years or more.

Dr. Paul A. Dailey, Carrollton, spoke on organized medicine. Dr. Carl E. Clark, Sycamore, chairman of the Advisory Committee to the Illinois Medical Assistants Association, presented the president of the association, Miss Thelma Newberry, Quincy, who told of the objectives of her group.

Greetings from the Woman's Auxiliary were conveyed by Mrs. Fred C. Endres, Peoria, president of the Auxiliary.

Dr. George C. Turner, Chicago, was elected chairman for the 1959 conference; Dr. E. F. Moore, Collinsville, vice chairman; Dr. Patrick H. McNulty, Chicago, secretary; Dr. Jacob E. Reisch, Springfield, advisory director.



Did you ever hear how the life of man is divided? Twenty years a-growing, twenty years in blossom, twenty years a-stooping, and twenty years declining. *J. Roswell Gallagher, M.D. et al. Recent Contributions to Adolescent Medicine. New England J. Med. July 3, 1958.*



Major General Dan C. Ogle



Major General Oliver K. Niess

Air force

Both the retiring and the newly appointed air force surgeon generals were born in Illinois. Major General Dan C. Ogle, Air Force Surgeon General for the past four years retired Nov. 30, after almost 30 years of active service. He was born in Keithsburg in 1901 and received his medical degree from the University of Illinois College of Medicine in 1929. Major General Oliver K. Niess, appointed to the position effective Dec. 1, was born in Belleville in 1903.

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Wanted: photos of physicians driving ancient automobiles

The Illinois State Medical Society is preparing an exhibit centered around an ILLINOIS MEDICAL JOURNAL article describing the role of physicians in the development of the automobile in the United States at the turn of the century.

To help illustrate this exhibit, the Society will appreciate the loan of old photographs showing physicians at the wheels of cars of 1900-1910 vintage. Scenes showing difficulties on the road or poor highway conditions are especially desired. Enlargements will be made of these photographs and the originals returned undamaged.

Photographs should be accompanied by a memo giving the name and town of the physician, whether living or deceased, and the make and year of the automobile. Send to Mr. John A. Mirt, Illinois State Medical Society, 185 North Wabash Avenue, Chicago 1.

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Hospital efficiency

Hospitals are known to pay low wages. As a result they have to deal with the lower strata of our competitive society. The aids and many of the building maintenance employees are among the lowest salaried groups which reflects in their work. The medical profession has always advocated the adage, "One gets what he pays for." It is reasonable to believe that if hospitals offered twice as much salary they could obtain employees who did four times as much work. It might solve many of their problems.

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Editorials from other journals—

Little grains of sand

In one of the tributaries of the Yellowstone River out in Montana a grain of sand is being washed down the stream. From Lake Itaska in

Minnesota another, and yet more from the Ohio River near Cincinnati, Ohio, and Muddy Creek near Sweet Springs, Missouri. Eventually all of these small particles will reach the Mississippi River and end up as part of a mass far down at the delta. These then will gradually build up until, due to their size, they actually will change the course of the Father of Waters. As the various grains of sand are directed, the sand bar may build up in ways which may improve or be detrimental to the ultimate channel of the great river.

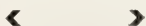
What has this to do with us here in our County Medical Society? We are as those grains of sand. If enough of us drift aimlessly we abet an ill course for organized medicine. But, if we so direct our efforts here in our own County Society, this good effect will then be carried on to our State Association and eventually to the American Medical Association and we can then feel we have done something constructive in helping to plan the future course of organized medicine.

Do we, each of us, not owe something to our profession, to our fellow physicians, to our families, and most of all to our patients? Does the American public not deserve the very best we can offer, not only individually but also collectively in their care? This we can do only by attending our County Medical Society meetings—and taking an active part in those meetings.

All too frequently we hear the same old cry, "What is the AMA trying to push down our throats?" But just check and you will find that this cry is most often set up by members who are "too busy" or "too tired" (or a thousand and one other reasons) to attend and participate in County Medical Society meetings. Stop and ponder. When was the last time YOUR NAME graced our attendance book?

For each of us this is not just something we ought to do. It is a MUST!

If we want GOOD American medicine in the future then let's all put our shoulders to the wheel to preserve it. Let us each carry our grain of sand so that the channel will be improved, not blocked. *Joseph B. Kendis, M.D. St. Louis County Med. Soc. Bull. Nov. 7, 1958.*



It goes far toward making a man faithful to let him understand that you think him so; and he that does but suspect I will deceive him, gives me a sort of right to do so. — Seneca

Council meeting minutes

The regular October meeting of the Council was held at the Hotel Sherman, Chicago, October 12, with the following present: Drs. Raleigh C. Oldfield, Joseph T. O'Neill, Lorne Mason, Paul P. Youngberg, Harold M. Camp, Carl E. Clark, George E. Kirby, H. Close Hesseltine, John Lester Reichert, Caesar Portes, E. A. Piszczek, E. H. Blair, Fred C. Endres, Jacob E. Reisch, Newton DuPuy, Arthur F. Goodyear, B. E. Montgomery, Willard W. Fullerton, Edwin S. Hamilton, Lester S. Reavley, Percy E. Hopkins, Roland R. Cross, Carl Steinhoff, Louis R. Limarzi, Lee O. Frech, Harry Mantz, Frank Fowler, Theodore R. Van Dellen, F. M. Nicholson, Norman L. Sheehe, George C. Turner, H. Kenneth Scatliff, E. F. Hirsch, Mr. John W. Neal, Mr. Walter L. Oblinger, and Mr. John A. Mirt.

The minutes of the September 7th meeting of the Council were approved as mailed to members.

REPORTS OF OFFICERS

The president, Dr. Raleigh C. Oldfield, reported his activities since the last meeting of the Council, which included attending the annual meeting of the Michigan State Medical Society. Dr. Joseph T. O'Neill, as president-elect, reported that he also had been a guest at the Michigan meeting, and said that this state medical society also made use of a speaker and vice speaker to preside at meetings of the House of Delegates.

Dr. Montgomery called the attention of the Council to the fact that Dr. Roland R. Cross started his 19th year as director of the Department of Public Health in October.

Following the supplementary report of the Secretary, Harold M. Camp, the Council ruled that there be no refund of half-year dues to a physician's estate when the individual died in the last half of the year. The Council also granted approval to the members of the Committee on Mental Health to attend the AMA Annual Conference on Mental Health scheduled at the Drake Hotel, Chicago, November 21-22.

I.P.A.C.

Dr. Montgomery reported as chairman of the Advisory Committee to the Illinois Public Aid Commission. The committee met with the representatives of the commission on Saturday eve-

ning. The Advisory Committee again recommended to the commission that fees be increased, basing the request on the free work done by physicians in filling out reports and other paper work. A revision of the method whereby investigations of physicians are conducted also was discussed. The Advisory Committee does not get all the facts and, in some cases, the physician himself comes before the commission and the committee before he has had an opportunity to explain the complaint. The commission has changed the control on some types of medication and the decision approving the use of the antibiotics, tranquilizers, and other medications can be made at the local level.

SECRETARIES' CONFERENCE

The Council approved the complimentary luncheon to be served at the Secretaries' Conference to be held in Springfield on Sunday, October 26. The Council approved the recognition of the work of the county medical society secretaries, and ruled that a suitable certificate be developed for presentation to those who have served in this capacity for 10 years or more.

P.G. AND S.S.

Dr. Limarzi reported as chairman of the Committee on Postgraduate Medical Education and Scientific Service. To date his committee has received 54 requests for speakers to appear before county or branch society meetings. A total of only 42 requests was received last year. This increase may be traced to the new list of speakers and their subjects mimeographed and mailed out to county medical societies.

Dr. Endres reported that his Committee to Study Postgraduate Programs (composed of Dr. Endres as chairman, Howard P. Sloan of Bloomington and Charles K. Wells of Mt. Vernon) would meet in the near future and probably would be ready to report at the December meeting of the Council. Dr. Montgomery reminded Dr. Limarzi that the 1956-1957 committee remained in force under the Constitution and Bylaws until another committee has been appointed and so notified. Therefore, he is at liberty to proceed and to call a meeting of the committee if he deems it advisable.

CONSTITUTION AND BYLAWS

Dr. O'Neill reported as chairman of the special Committee to Consider Changes in the Constitution and Bylaws as presented at the last meet-

ing of the House of Delegates. His report was one of progress; his group had met with the Committee on Constitution and Bylaws and the groups may be ready to make recommendations in the near future. Letters have been sent to Wisconsin, Iowa, Kentucky, Indiana, and other areas relative to the term of office held by Councilors. Letters also are being sent to California, New York, and some of the other larger state societies to find out what they are doing along this line. A more detailed report will be given at the December meeting.

INTERIM COMMISSION

Dr. Hesseltine reported that he and Dr. Piszczek had met with the subcommittee of the Interim Commission studying the Medical Practice Act. Representatives of the Society are to meet with the commission on November 12, and at that time written statements will be presented dealing with the position of the society in reference to the Medical Practice Act. Mr. Oblinger stated that these statements will include opinions relative to internships, the expiration of medical licenses issued as a result of the re-registration, methods to enforce the Medical Practice Act, a request that physicians be prohibited from taking the licensing examination more than three times without returning to school for additional study, a citizenship bill, the lowering of the fee from \$200 to \$100 for reciprocity or endorsement, the illegal practice of medicine by cultists (to outline exactly what they are empowered to do under the law to make the enforcement of the act easier in the courts). The Council requested that copies of these written statements be submitted to the membership prior to the presentation in Springfield.

DIRECTOR OF PUBLIC HEALTH

Dr. Cross reported as director of the Department of Public Health that the recent upgrading of the salary schedules for physicians has begun to produce the desired results. Last week Dr. Allan A. Filek was appointed to the position of medical officer in Aurora to succeed Dr. Felix Tornabene; and earlier this month, Dr. Huston J. Banton was appointed to the vacant position of medical officer in Champaign. A vacancy still exists in the Carbondale office.

A five state conference was held in Chicago on October 10 to discuss the problem of staphylococcal diseases. Staff members from the Com-

municable Disease Center in Atlanta (USPHS) were present. Dr. Hesseltine attended the meeting and agreed that good papers were presented and interesting discussions on epidemics were held. The fact that the Department of Public Health should be called in at once whenever an epidemic develops must be recognized by all involved.

Dr. Cross also reported that the State Advisory Board on Necropsy Service to Coroners strongly recommended that a toxicological laboratory service be established in the State Department. The Board recommended that two toxicological units be set up, one in Springfield and one in Chicago. Favorable interest in this proposal has been expressed by the coroners, the coroners' physicians, and the pathologists. Such a laboratory also would be prepared to test samples of water from polluted streams to determine the chemical ingredients of industrial wastes emptied therein. It is estimated that \$100,000 will be sufficient for the first biennium to install and operate the toxicological laboratory service.

COMMITTEE REPORTS

Dr. Hopkins, Mr. Neal, and Mr. Oblinger presented the report of the Committee on Medical Service and Public Relations. Mr. Mirt reported on his exhibit "Old Doc" which he had taken to Arkansas, and which, by order of the Council, will be shown at the AMA in Atlantic City next June if space is available.

Dr. Sheehe and his Benevolence Committee members held a meeting Saturday evening, and reported on some of the cases in detail. At this time there are 45 beneficiaries—34 widows and 11 physicians. The expenses for these recipients run approximately \$3,000.00 a month.

Dr. Steinhoff stressed the fact that the Doctors' Draft might be reactivated in the near future, and the Committee on Selective Service, which has been dormant for some time, might

see extended activity in the near future.

The members of the Committee on Civil Defense, of which Dr. Charles P. Blair is the chairman, was authorized to attend the AMA meeting in Chicago on November 8-9.

I.D. CARDS FOR PHYSICIANS?

Dr. Reisch stated that he had held a conference with Director Vera Binks of the Department of Registration and Education and discussed in detail the possibility of the Department's issuing "pocket identification cards" for all physicians renewing their licenses to practice medicine in Illinois. The use of the physician's picture or fingerprint was not considered practical, and a pocket card was agreed upon which would be printed on "banker's paper" (impossible to alter or photograph) with a space on the back for the physician's signature. A joint news release met with Judge Bink's approval, and she stated she would co-operate with the Society and considered the pocket cards a protection to the public. They could be supplied at this time as an experiment, and two years from now, when the physician must renew his license, the question can be considered again.

The Secretary was instructed to write to Director Binks and ask her to supply the recipients of licences with a pocket card (with provision for the individual's signature on the back), and that the appreciation of the Society be expressed to her for her co-operation and interest in the project.

After the luncheon a film was shown by representatives of the Department of Public Welfare at the request of the director, Dr. Otto L. Bettag.

The Council adjourned at approximately 2:30 o'clock.

Respectfully submitted,
HAROLD M. CAMP, M.D., Secretary

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THE P. R. PAGE

John A. Mirt



Society-newspaper co-operation

The Medical Society of the County of New York in co-operation with the *New York Journal American* has prepared a series of full page Sunday features on medicine in question and answer form. This is considered to be the newest approach in providing authentic information to the public, and as such is a vital public service.

Each article takes up a special medical topic, including nervous tension, headache, common cold, heart disease, arthritis, and other common ailments of mankind.

There is a high appreciation of the ethics of the medical profession. All of the text is cleared with the society in advance. It is emphasized that the information is provided by a panel of physicians and not by any individual. Names and photographs of physicians are not used, a real concession for a newspaper because editors usually want names.

The newspaper has agreed not to run any advertisement on the page that promotes medical products or services. In return, the society has granted the use of its official seal to identify the page and has organized teams of physicians to answer in simple lay language the questions submitted by the newspaper.

Newspaper-physician survey

A recent survey of 73 newspaper editors and 320 physicians by Prof. Roy Carter of the University of North Carolina Journalism Department uncovered numerous flaws in public relations programs which an alert county medical society can correct. Among the findings of the

survey were:

- (1) More than one half of the editors did not know about local medical society's information services. The most frequent suggestion was that the society provide a list of spokesmen.
- (2) Almost all of the editors believed that a press code would help, but only half of them were familiar with such a code.
- (3) Only one third of the editors believed that adequate medical care was available for indigents.

Medical society officers, PR chairmen, and older physicians for the most part felt they were treated fairly by the press. The opinion was that a society spokesman who had developed good relationships with newspapermen over a period of years is the most satisfactory news contact.

Conference on school athletics

A county public relations project that appears to be accomplishing good results in many parts of the country concerns high school sport activities.

Local medical societies are sponsoring athletic injury conferences, with high school coaches and administrators and Parent-Teacher Associations as participants. Usually, the meetings emphasize the responsibility of the school coach, the administrator, the parents, and the physician and dentist. Among the topics discussed are specific injuries, their prevention, detection, and immediate and long-time treatment.

Such conferences are more effective at the opening of the fall semester.

CORRESPONDENCE



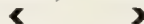
Clinics for crippled children listed for January

Twenty-one clinics for Illinois' physically handicapped children have been scheduled for January by the University of Illinois, Division of Services for Crippled Children. The Division will count 18 general clinics providing diagnostic orthopedic, pediatric, speech, and hearing examination along with medical, social, and nursing service. There will be two special clinics for children with cardiac conditions and one for children with rheumatic fever.

Clinics are held by the Division in co-operation with local medical and health organizations, both public and private. Clinicians are selected among private physicians who are certified Board members. Any private physician may refer to or bring to a convenient clinic any child or children for whom he may want examination or consultative services.

- January 7 — Hinsdale, Hinsdale Sanitarium
- January 8 — Clinton, Christian Church
- January 8 — Mt. Vernon, Masonic Temple
- January 8 — Springfield, St. John's Hospital
- January 8 — Sterling, Community General Hospital
- January 9 — Chicago Heights (Cardiac), St. James Hospital
- January 13 — East St. Louis, St. Mary's Hospital
- January 13 — Peoria, Children's Hospital
- January 13 — Quincy, St. Mary's Hospital

- January 14 — Joliet, Will County T.B. Sanitarium
- January 15 — Elmhurst (Cardiac), Memorial Hospital of DuPage Co.
- January 15 — Flora, Clay County Hospital
- January 15 — Rockford, Rockford Memorial Hospital
- January 20 — Alton, Alton Memorial Hospital
- January 20 — Danville, Lake View Hospital
- January 20 — Peoria, Children's Hospital
- January 21 — Evergreen Park, Little Company of Mary Hospital
- January 22 — Cairo, Public Health Building
- January 22 — Decatur, Decatur-Macon County Hospital
- January 27 — Effingham (Rheumatic Fever), St. Anthony Hospital
- January 28 — Salem, Masonic Temple



Cancer research award

The Ann Langer Cancer Research Foundation announced its annual Bertha Goldblatt Teplitz award of \$500 for meritorious research in cancer, either clinical or laboratory. Competition is limited to physicians and other scientists under 45.

Nominations and a short statement and biography should be submitted to the Teplitz Award Committee, 612 North Michigan Avenue, Chicago 11, by February 1. The Committee is composed of Drs. Austin M. Brues, Israel Davidsohn, Danely P. Slaughter, Albert Tannenbaum, and William B. Wartman.

Radiation physics course

The Northwestern University Medical School will present a course in radiation physics for residents in hospitals associated with the university and for physicians. Classes will be held Monday evenings from January 5 through May 4 at the Veterans Administration Research Hospital, 333 East Huron Street, Chicago.

Write to the registrar, Northwestern University Medical School, 303 East Chicago Avenue, Chicago 11, for information.

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Chest physicians' course

The American College of Chest Physicians will present its fourth annual postgraduate course on diseases of the chest in San Francisco, February 16-20. Tuition will be \$100, including luncheon meetings.

Information may be obtained by writing to the executive director, American College of Chest Physicians, 112 East Chestnut Street, Chicago 11.

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Health education conference

The 1959 eastern states health education conference of the New York Academy of Medicine will be held at the Academy, 2 East 103rd Street, New York, April 23-24.

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I.C.S. to hold regional meeting in Miami Beach

Nearly 100 surgeons from 19 states and three foreign countries, including instructors from 18 medical schools, will present the scientific program at the Southeastern Regional Meeting of the United States Section, International College of Surgeons, in Miami Beach, Fla., January 4-7. Sessions will be held at the Americana Hotel.

A cinema program will be presented on the first day, Sunday. Starting Monday, there will be a three-day program covering general surgery and surgical specialties. A special feature will be a panel on surgical emergencies for general practitioners that has been accorded category 1 credit by the American Academy of General Practice.

Chicagoans who will participate in the scientific program are: Drs. Edward L. Compere, president of the United States Section; Ross

T. McIntire, executive director of the college; George F. Lull, assistant to the president of the AMA; Philip Thorek, Jerome J. Moses, Oscar J. Becker; Peter A. Rosi, and Lindon Seed.

Information may be had by writing to Dr. Ross T. McIntire, International College of Surgeons, 1516 Lake Shore Drive, Chicago 10.

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Ophthalmological society to hold clinical meeting

The Chicago Ophthalmological Society will hold its annual Clinical Conference at the Drake Hotel, Chicago, February 13-14.

Guest speakers will include: Drs. Raleigh C. Oldfield of Oak Park, president of the Illinois State Medical Society; J. Robert Fitzgerald, William F. Hughes, Gilbert Iser, Bertha Klein, Frank W. Newell, John H. Olwin, and Theodore Zekman, Chicago; Frank Pirruccello, Evanston; Paul A. Chandler, Boston; Charles E. Iliff, Baltimore; Samuel J. Kimura, San Francisco; John H. King, Washington; J. V. Cassady, South Bend.

Information may be had by writing to Mrs. Edward J. Ryan, executive secretary, 1150 North Lorain Avenue, Chicago 51.

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Seminar on cancer

The Arizona Division of the American Cancer Society will hold its 7th annual Cancer Seminar in the Paradise Inn, Phoenix, January 22-24.

Subjects to be covered include solitary lesions of the lung, carcinoma of the lung, clinical and pathological diagnostic problems, chemotherapeutic agents, and tumors of the stomach.

Information may be obtained from Mr. James R. Bunker, executive director, Arizona Division, American Cancer Society, 543 East McDowell Street, Phoenix.

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Industrial health course

A concentrated course in industrial health for registered nurses will be presented by the Institute of Industrial Health, University of Cincinnati, during the week of March 2.

The institute and department of ophthalmology also will present a four day course in eye care and industrial eye programs, March 9-12.

Information may be had by writing to the secretary, Institute of Industrial Health, Ketter-

ing Laboratory, Eden and Bethesda Avenues, Cincinnati 19.

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A.C.S. announces five sectional meetings

The American College of Surgeons announced dates for five sectional meetings in 1959, as follows: Charleston, January 19-21; Houston, February 2-4; Vancouver, February 26-28; St. Louis, March 9-12; Montreal, April 6-9. There will be joint nurses sessions at the last two meetings.

Sectional meetings are planned by local committees, and are designed to answer the needs of physicians within the area. Panels, symposia, reports, medical motion pictures, and question and answer sessions are provided. Prominent surgeons serve as teachers and lecturers.

Programs may be had by writing to Dr. H. Prather Saunders, associate director, American College of Surgeons, 40 East Erie Street, Chicago 11.

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O. & G. board examinations

The American Board of Obstetrics and Gynecology will hold Part II examinations, oral and clinical, at the Edgewater Beach Hotel, Chicago, May 8-19. Candidates will be notified of their eligibility.

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Center to study congenital heart disease specimens

A congenital heart disease and training center has been established in Chicago by the Chicago

Heart Association, United States Public Health Service, and Hektoen Institute. The co-operation of physicians and pathologists throughout the state is asked.

The center is interested in obtaining congenital heart disease specimens. A report of the pathology found will be made, and the heart specimens returned if desired.

Specimens should be sent to Dr. Maurice Lev, Hektoen Institute, 629 South Wood Street, Chicago 12.

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Grants in psychiatry

The National Institute of Mental Health is offering grant support for a training program in psychiatry for general practitioners and other physicians excepting those engaged in psychiatry. Two types of courses are covered: (1) for the physician who plans to continue practicing in his own field; (2) for those approved for psychiatric residency training.

Information may be had from Mr. Seymour D. Vestermarck, chief of the training branch, National Institute of Mental Health, Bethesda 14, Md.

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Physical medicine awards

The American Congress of Physical Medicine and Rehabilitation, 30 North Michigan Avenue, Chicago 2, announced two essay contests covering its field, one for \$200 and the other for \$100. Manuscripts must be received by March 2. Details may be obtained by writing to the Congress.

The Congress will hold its 37th annual scientific and clinical session in Minneapolis, August 30-September 4, 1959.

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AT THE EDITOR'S DESK



PHARMACEUTICALS

Quadrigen, Parke, Davis' four-in-one vaccine designed to immunize against poliomyelitis, whooping cough, diphtheria, and tetanus is proving to be effective and nontoxic in the hands of the Detroit Health Department. They report that the vaccine is beneficial as a primary immunization as early as 2 months of age; that a booster is "warranted and highly efficacious," preferably after 18 months.

Squibb reports that its new steroid substance, —triamcinolone acetonide (Kenalog) proved effective in the treatment of various skin diseases, particularly atopic dermatitis, contact dermatitis, eczema, neurodermatitis, and seborrheic dermatitis. The drug is said to give rapid and complete relief of itching and burning, and is remarkably free of side effects.

The U. S. Public Health Service, new engaged in research in hypertension, reported on the impressive blood pressure lowering effects of a new drug, 1-phenyl-2-hydrazinopropane, also known as JB 516. A unique side effect was noted—temporary development of red-green color blindness, which is reversible upon the withdrawal of the drug. JB 516 is one of a series of monoamine oxidase inhibitors. These inhibitors normally destroy certain amines in the body, such as serotonin and norepinephrine.

Lilly's new Ilosone is said to produce anti-

bacterial activity in the blood serum that is from two to four times as great as that obtained with ordinary erythromycin. The product is more dependably absorbed and produces quicker, higher, and more prolonged concentration in the blood. It appears to be as safe as its parent drug. Twelve of 17 pneumonia patients were free from fever in two to six days.

Competition in the steroid field is terrific. Schering has announced Deronil as a new corticosteroid "which surpasses in activity any other steroid in clinical use today." The company claims in a news release that it has a five or six to one ratio of greater activity in rheumatoid arthritis than methylprednisolone and triamcinolone. No mention was made of the side effects of this drug, especially after prolonged administration.

The competition in the diuretic field is equally keen. Esidrex is Ciba's new oral diuretic that is not yet commercially available. Preliminary reports say it is successful in relieving edema associated with high blood pressure, congestive heart failure, and other diseases. Laboratory studies indicate that the product is of low toxicity and, on a milligram for milligram basis, is the most effective oral diuretic of this type to date.

Reports continue to appear on the alleged lowering of blood sugar by aspirin yet no one seems to advocate its use in treating diabetes.

Diabenese (chlorpropamide), Pfizer's new antidiabetic tablet, is as effective as tolbutamide, but is the first oral agent in which hypoglycemia may become a problem. Chlorpropamide is a propyl rather than a butyl compound and has a chlorine ion in the para position on the benzene ring. The dosage is smaller than in tolbutamide, ranging from 0.25 to 0.5 grams daily.

The antimalarial drugs Aralen (chloroquine) and Plaquenil (hydroxychloroquine) are effective not only in arthritis but also in treatment of arrhythmias. In a series of 64 patients, restoration of normal sinus rhythm or reduction of ectopic beats by 75 per cent or more was reported in 50 of 73 arrhythmias on oral dosages of Aralen or Plaquenil. A satisfactory response was observed in 23 of 44 cases of auricular fibrillation, and in over 85 per cent of premature ventricular contractions.

EQUIPMENT

The Akron Truss Company has a unique overhead traction set for use in cervical lesions needing traction. It fastens to the top of the door jamb instead of the door. The head halter conforms to chin and facial configurations.

MISCELLANEOUS

A new low in atmospheric temperatures was established recently in a 135.4 degrees below zero F. 13 miles above the South Pole. An airborne instrument launched by the weather bureau recorded the temperature. This is estimated about three degrees below the previous record low established by a balloon-carried instrument in the Antarctic stratosphere in August, 1957.

Merck Sharp & Dohme Laboratories has new evidence that mental illness may be related to faulty blood chemistry. The injection of human blood obtained from hospitalized mental patients altered the habits of rats trained to climb a five to six foot rope to a platform for a food reward. In the experiment, after the cage door was opened, instead of crowding forward to sniff at their visitor as they do normally, the rats huddled at the back of their cages. When placed on a grid at the bottom of the rope, they would sometimes take several electric shocks before jumping onto the rope and then would often stop climbing and "freeze" as though staring into space. Rats that attempted the climb did so by advancing one paw at a time, often with fum-

bling movements. On reaching the platform they would hang their heads over the food cup without eating, even though some food had been withheld for 24 hours or more. Animals that received blood from persons who were normal mentally served as controls.

It is well known that today's children are taller and heavier than those of a generation ago. Metropolitan Life Insurance showed that in boys under 9, average heights were greater by a fraction of an inch, and at ages 9 and over, by an inch or more. Among girls the difference was an inch as early as age 8. The increase in average weight ranged from more than two pounds at age 7 to as much as 13 pounds at age 14. Statisticians noted that with the accelerated rate of child growth, full adult height is approached at a somewhat earlier age than in the past.

FLUKES

Important inroads are being made in uncovering the mysteries of schistosomiasis. The University of Cleveland has received a sizable grant for research on snails which play host to the human blood flukes. These scientists hope to uncover a substance that will attract widely dispersed populations of snails to a relatively confined area, where they can be destroyed easily. Meanwhile Pfizer has reported that its compound, glucosamine, is effective against schistosomiasis. Though not prevalent in the United States, the disease is said to be second to malaria as the world's greatest killer. This work is based on earlier reports that the schistosome worm, which uses glucose for food, is poisoned by this sugar in the form of glucosamine. Perhaps flukes are diabetic.

RED CARPET SERVICE

Hereafter rats will travel in style in transit to medical research laboratories throughout the world. The secret is in the use of the new laboratory animal bedding, Sterolit. The animals are placed in a Charles River container made of corrugated board, assembled by stapling, with wire mesh screening on the inside, across the bottom, and over the ventilation openings located front and back. The animals do not require preparation for travel; no sedatives or tranquilizers are administered. Sterolit bedding is spread over the container bottom, a few sliced potatoes are put in to provide water, dry pellets are supplied

as food, the rats are placed inside, the container is stapled closed, and the animals are on their way. Cape Canaveral please take notice.

A SENSIBLE PRESENT

The Carling Brewing Company of Cleveland in the past rewarded its 600 distributors with Christmas presents costing about \$10,000. This year the entire sum will be given to the National Fund for Medical Education to be distributed among the nation's medical schools for use in supplementing faculty salaries. Carling firmly believes in the Fund's objectives and has supported it since 1954. The contribution actually will be worth \$20,000, because the Ford Foundation matches all "new" money, dollar for dollar, given to the National Fund.

HOME CARE OF TUBERCULOSIS

Criteria for the care of tuberculosis patients at home, after an initial period of hospitalization, are outlined in a statement on "Recommended Standards for Home Care of Patients with Tuberculosis" by the Committee on Therapy of the American Trudeau Society, medical section of the National Tuberculosis Association. This committee strongly recommends that all tuberculosis patients accept hospitalization as soon as the need for treatment is established and that it be continued until the following conditions have been met: "1. diagnostic procedures adequate for the evaluation of the entire patient and his disease have been completed; 2. chemotherapy has been instituted and the patient's tolerance to the drugs prescribed has been determined; 3. symptoms, if any, have been controlled; 4. communicability of the disease is believed to have been adequately diminished for the patient's circumstances; 5. it has been determined that home conditions are adequate for care of the patient, and the patient has demonstrated an attitude of trustworthiness and co-operation; 6. it has been determined that the family is not only capable, but it desirous of caring for the patient and will make the sacrifices which home care requires; and 7. the patient has been well instructed about his disease and its treatment, including the development of good dietary habits and good habits of personal hygiene, and uninterrupted medical care is assured, including regular

visits to the physician or house calls, if indicated."

ORAL POLIO VACCINE

The Puerto Rico News Service reports that the success of the new oral polio vaccine may make the Salk vaccine obsolete. At the 15th Pan American Sanitary Conference held in Puerto Rico, Dr. Hector Abad Gomez, of the Ministry of Health of Colombia, revealed that an orally administered polio vaccine successfully wiped out a full-fledged epidemic in the Colombian town of Andes last May. It was administered to 7,352 children between the ages of 2 months and 7 years after an outbreak of poliomyelitis had caused 21 cases of paralysis and one death. After the first vaccinations, Dr. Abad Gomez said, five more cases of paralytic polio were reported among rural people who had not been inoculated, but not a single case was found among those who had received oral vaccine. A much larger project is under way and the results should prove interesting.

HEALTH INSURANCE

A survey conducted by the Health Insurance Foundation found that seven out of every 10 persons with health insurance express "complete satisfaction" with it. About a quarter of the insured persons felt the existing coverage could be improved. Many thought that the insurance should cover more services, such as physicians' home and office visits, and a higher proportion of the total bills for presently covered hospital-surgical services. One person in six complained that premiums were too high. Ninety-four per cent of the physicians interviewed felt that having insurance affects the way a patient behaves when ill. Insured patients are more willing to undergo needed hospitalization and surgical treatment, and are more likely to seek medical attention in time. The report also stated that "The public's regular doctors appear less satisfied with present health insurance than are their patients. Only 35 per cent expressed satisfaction with present benefits. Fifty-nine per cent felt that benefits should be increased."

Benefit payments to Americans covered by health insurance through insurance company policies exceeded \$2 billion during the first nine months of 1958.



NEWS of the STATE



COOK

TALKS. Dr. Richard A. Perritt, attending staff, department of ophthalmology, Chicago Wesley Memorial Hospital gave addresses in Brussels, Cairo, Karachi, New Delhi, Bombay, Madras, Calcutta, Colombo, Bangkok, Hong Kong, Manila, and Tokyo covering corneal transplantation surgery, cataract surgery, and plastic lens replacement.

JANUARY LECTURES. Dr. A. F. Lash, clinical professor of obstetrics and gynecology, University of Illinois School of Medicine, will present the third in a series of free lectures on the history of surgery and related sciences in the International Surgeons Hall of Fame, Jan. 13, at 8 p.m. Dr. Lash's subject will be "The History of Gynecology."

Dr. M. David Allweiss, associate in medicine, will open Northwestern University Medical School's series on The Growth of Medicine, Jan. 6, at 8 a.m. at the Ward Building with a talk on "Hippocrates." The remaining talks during January will be given by other staff members of Northwestern University Medical School: Drs. Samuel Zakon, professor of dermatology, "Maimonides," Jan. 13; Frederick Stenn, assistant professor of medicine, "Osler," Jan. 20; and Ralph Reis, professor of obstetrics and gynecology, "Semmelweiss," Jan. 27.

HOSPITALS. St. Anne's Hospital, Chicago, has

announced the organization of a school of medical technology. It is open to men and women with two years of college and will be managed by Dr. James B. Hartney, director of the pathology department.

Dr. Harry Oberhelman, retiring chairman of Mercy Hospital's department of surgery, was honored at the 11th annual resident alumni dinner in the Sheraton-Blackstone hotel.

Michael Reese Hospital and Medical Center appointed Chicago born Dr. William Shoemaker to head its new department of experimental surgery, which will begin operations Jan. 1, 1959. Dr. Maurice S. Goldstein will head the department of metabolism and endocrinology.

The first staff members and auxiliary women of Louis A. Weiss Memorial Hospital were honored at a fifth anniversary luncheon. Physicians honored included Drs. David Kram, Erwin Klein, Leon Bobrow, and Samuel Levinson. Since its opening in 1953 the hospital has added a 21 bed maternity department, a clinic for indigent patients, and several education programs.

EXPANSION. The Chicago Medical School has announced an expansion of its current residency training program in psychiatry and neurology under a newly established grant of \$15,500 from the U. S. Public Health Service. The program has been approved for three years and will utilize the facilities of Mount Sinai Hospital, the Illinois State Psychiatric Institute and the West

Side VA Neuro-psychiatric Hospital and Clinics. Dr. Harry H. Garner, professor and chairman of the school's department of psychiatry and neurology, is director of the program.

MEETING. At the November meeting of the Chicago Pediatric Society, Mr. Duncan R. C. Scott, director, Speech and Hearing Center, Presbyterian-St. Lukes Hospital spoke on "Functionally Delayed Speech in the Very Young Child." A discussion of the talk was given by Drs. George E. Shambaugh and Adrian H. Vander Veer.

MEETING. The fall meeting of the Chicago Society of Industrial Medicine and Surgery consisted of a symposium and panel discussion on "Disability Evaluation" by Emil Caliendo, commissioner, Industrial Commission State of Illinois; Earl Cella, claims supervisor, Indemnity Insurance Company of North America; and Dr. William Patrick, industrial surgeon.

MEDICAL HISTORY. Dr. Noah D. Fabricant, clinical assistant professor of otolaryngology, University of Illinois College of Medicine, spoke on "Asthmatic Life of Marcel Proust"; and Dr. Jordan M. Scher, co-ordinator in psychiatry, Northwestern University Medical School spoke on "Haslam and English Psychiatry of the Early 19th Century" at the November meeting of the Society of Medical History of Chicago.

LAKE

MEETING. "Some Interesting Radiological Findings Seen in an Army Medical Installation," was discussed by Captains David Corbett, M. C. and Marvin Zolot, M. C. at the November meeting of the Lake County Medical Society at Fort Sheridan.

MEETING. The Keeley Institute of Dwight was host to the Livingston County Medical Society at a program dinner on Nov. 19. The speaker was Dr. Joseph Hirsh, associate professor of preventive and environmental medicine and assistant dean at the Albert Einstein College in New York. Dr. Hirsh spoke on "The Dimensions and Dynamics of Alcoholism."

PEORIA

MEETING. Dr. Warren H. Cole, professor of surgery, University of Illinois College of Medicine spoke on "Current Trend in Gall Bladder

Disease," at the November meeting of the Peoria Medical Society.

ST. CLAIR

MEETING. The St. Clair County Medical Society held its November meeting jointly with the Southern Illinois Medical Association. The speaker was Bob Burns, St. Louis Globe Democrat and his topic, "Athletic Injuries."

SANGAMON

MEETING. Dr. Joseph Pratt, professor surgery, Mayo Foundation spoke on "Vaginal Hysterectomy Indications, Complications, and Results," at the November meeting of the Sangamon County Medical Society.

TAZEWELL

HEALTH CHAIRMAN. Mrs. Florence L. Baltz, Washington, was named chairman of the new Joint Council to Improve the Health Care of the Aged. She also is president-elect of the American Nursing Home Association.

VERMILION

MEETING. Dr. J. T. Reynolds, professor of surgery, University of Illinois College of Medicine, spoke on "Surgical Problems Associated with Biliary Tract Disease," at the November meeting of the Vermilion County Medical Society.

POSTGRADUATE CONFERENCE. Six physicians from the staff of Presbyterian-St. Luke's Hospital, and the faculty of the University of Illinois College of Medicine, Chicago, participated in a postgraduate conference November 20 in the Wolford Hotel, Danville. It was arranged by the Illinois State Medical Society's Committee on Post-graduate Medical Education and Scientific Service especially for the benefit of physicians in Champaign, Clark, Coles-Cumberland, Douglas, Edgar, Ford, Iroquois, and Vermilion counties.

Heading the Chicago group was Dr. James A. Campbell, chairman of the hospital's department of medicine and professor of medicine at the university, who was the main dinner speaker. The Chicagoans who participated in the scientific program were Drs. Edward J. Beattie, Harry Boysen, John S. Graettinger, Robert M. Kark and Sydney Kofman. Dr. William H. Schowengerdt of Champaign, committee member, presided at the afternoon session. Dis-

cussion leaders were Drs. Dennis B. Dorsey, David M. Jordan, Harold W. Keschner, and John J. Walsh, all of Danville. Dr. Fritz Koenig of Catlin, president of the Vermilion County Medical Society, presided at the dinner. Another speaker was Dr. Harlan English of Danville, a society councilor. The Vermilion County Medical Society was host at a luncheon.

GENERAL

MEMORIAL LECTURE. Among the special events at the 20th anniversary meeting of the American Academy of Dermatology and Syphilology held Dec. 6-11, the first of the James R. Webster Memorial Lectures was given to honor the academy's late president, Dr. Webster. Dr. G. A. Grant Peterkin of the University of Edinburgh, Scotland presented "The Changing Pattern of Dermatology." Dr. Anthony C. Cipollaro, New York Polyclinic Medical School and Hospital, discussed "Current Trends in Cutaneous Radiation Therapy."

PUBLIC HEALTH DEPARTMENT. Dr. Huston J. Banton assumed the duties of health officer of the East Central Region of the Illinois Department of Public Health October 23. He succeeds the late Dr. S. N. Mallison.

With headquarters in Champaign, Dr. Banton will supervise public health activities in 13 Illinois counties: Champaign, Clark, Coles, Crawford, Cumberland, Douglas, Edgar, Ford, Iroquois, Jasper, Livingston, Moultrie, and Vermilion. He also will give consultation service to public health agencies in McLean, DeWitt, Piatt, Effingham, and Shelby counties.

Dr. Banton goes to Champaign from the Alexander-Pulaski Bi-County Health Department (Illinois), where he has served as health officer for the past two years. He also served for five years with the Massachusetts Department of Health.

A native of this state, he received his medical degree from the University of Illinois. His public health training was taken at Harvard University from which he received the M.P.H. degree.

In addition to his public health experience, Dr. Banton served for 20 years in the Medical Corps of the U. S. Army and three years with the American Red Cross blood program in Massachusetts.

On October 1, Dr. Allan A. Filek assumed the duties of health officer of the Northeastern Region of the Illinois Department of Public Health, with offices at Aurora. He succeeds Dr. F. A. Tornabene who resigned last May to accept the position of health officer of the Will County Health Department.

A native of Illinois, Dr. Filek received his medical training at Rush Medical College of the University of Chicago. He holds the Master of Public Health degree from the University of Michigan and is certified in public health by the American Board of Preventive Medicine.

In addition to a year in the Army Medical Corps and two years in the private practice of medicine, Dr. Filek has had wide experience in the public health field in the state of Wisconsin. He served for six years as director of the Division of Tuberculosis Control and for nine years as director of the Division of Local Health Services of the Wisconsin Board of Health. His experience also includes seven years as a district health officer, with headquarters in Green Bay. In that position he served eight Wisconsin counties with a combined population of 350,000.

AWARD. Dr. Louis B. Newman, chief of physical medicine and rehabilitation service, VA Research Hospital, Chicago, was honored with the Meritorious Service Award for 1958, the highest citation conferred by the Veterans Administration.

PATHOLOGISTS' MEETING. Dr. Coye C. Mason was elected secretary-treasurer of the American Society of Clinical Pathologists at their recent meeting, and at a concurrent meeting, Dr. John F. Sheehan, dean of Stritch School of Medicine was elected to the board of governors of the College of American Pathologists.

AWARD. Larry Samuels of the University of Illinois College of Medicine received one of the prizes for a winning paper in the 1958 Schering Award Competition.

NEW OFFICERS. Among the newly elected officers of the American College of Gastroenterology are Dr. Edward J. Krol, Chicago, a vice president; Dr. John P. Waitkus, Chicago, a governor; and Dr. Harry A. Oberhelman, Oak Park, a trustee.

MEETING. About 500 members of the American Association of Medical Assistants met at the Palmer House, Chicago, October 30 to November 2, for their second annual convention

and educational sessions. Girls from 30 states were registered from 20 states already organized and chartered.

Four national medical advisors and numerous other physicians also attended. The role of the assistants in medical public relations was discussed.

Delegates representing a membership of more than 6,000 voted to establish national headquarters in Chicago early next year.

LECTURES ARRANGED BY THE ILLINOIS STATE MEDICAL SOCIETY:

WALTON F. DILLON, assistant clinical professor of obstetrics and gynecology, Stritch School of Medicine of Loyola University, addressed a Parent Education Study Group of the Luella School Parent Teacher Association, December 2, on "The Menopause."

MORTON A. GOLDMANN, clinical associate in medicine, University of Illinois College of Medicine, addressed the Ner Tamid Golden Age Club, December 15, on "Factors in Keeping Healthy."

CHARLES D. KRAUSE, clinical assistant professor of obstetrics and gynecology, University of Illinois College of Medicine, Englewood Branch of the Chicago Medical Society, January 6, on "The Management of So-Called Functional Vaginal Bleeding."

EUGENE F. LUTTERBECK, professor of radiology, Cook County Graduate School of Medicine, Vermilion County Medical Society in Danville, January 6, on "Radiation Therapy in Gynecology."

WILLIAM J. BRYAN, Superintendent and Medical Director of the Rockford Municipal Tuberculosis Sanitarium, Stephenson County Medical Society in Freeport, January 15, on "Tuberculosis."

STEVEN O. SCHWARTZ, associate professor of medicine, Northwestern University Medical School, Whiteside and Lee County Medical Societies in Sterling, January 15, on "Why Anemic?"

JOHN LOUIS, clinical instructor in medicine, University of Illinois College of Medicine, Stock Yards Branch of the Chicago Medical Society, January 16, on "Management of Leukemia."

GEORGE V. BYFIELD, assistant professor of medicine, University of Illinois College of Medicine, Kankakee County Medical Society in Kankakee, January 20, on "The Patient with Intractable Angina."

DEATHS

JAMES HARLAN ANDERSON, Aurora, who graduated at the Michigan Department of Medicine and Surgery in 1912, died August 7, aged 73, of cerebral hemorrhage. He had served on the staffs of the Copley and St. Joseph's Hospitals.

ARNOLD WARREN BRODY, Chicago, who graduated at the Chicago Medical School in 1955, died August 19, aged 29, of chronic glomerulonephritis. He was a resident at Cook County Hospital.

THOMAS G. CHARLES*, Beardstown, who graduated at Northwestern University Medical School in 1909, died October 10, aged 71.

JOHN B. CIPRIANI, retired, Chicago, who graduated at the University of Illinois College of Medicine in 1913, died October 20, aged 67. He was formerly managing officer of the Illinois Eye and Ear Infirmary, and physician for the Chicago Transit Authority.

MATTHEW E. CREIGHTON*, Chicago, who graduated at Loyola University School of Medicine in 1925, died October 21, aged 59. He was former president of the medical staff at St. Bernard's Hospital, and a member of the American College of Surgeons.

JOHN E. EKSTROM, Chicago, who graduated at Rush Medical College in 1909, died in the Burnham City Hospital in Champaign, August 24, aged 75. For many years he was a member of the staff of Ravenswood Hospital.

OSCAR HAWKINSON*, retired, Oak Park, who graduated at the University of Illinois College of Medicine in 1906, died November 1, aged 81. He was a former president of the Chicago Medical Society, and at one time chairman of the Council of the Illinois State Medical Society. He had served on the staffs of St. Anne and West Suburban Hospitals.

FRANK M. HORSTMAN, retired, Northbrook, who graduated at the University of Illinois College of Medicine in 1904, died October 27, aged 80. He had been examining physician for the Burlington Railroad.

FRANK JOHNSTON, retired, formerly of Milton, who graduated at Missouri Medical College in 1897, died at Winston-Salem, North Carolina, October 23, aged 85. He had practiced medicine in Pike County for almost 60 years.

CHARLES E. KAHLKE, retired, Benton Harbor, Michigan, formerly of Chicago, who graduated

*Indicates member of the Illinois State Medical Society.

at Hahnemann Medical College and Hospital in 1894, died October 10, aged 88. He had been a vice president of the board of trustees of the Chicago Wesley Memorial Hospital, and was a founder of the American College of Surgeons.

ALBERT J. KASS*, Chicago, who graduated at Loyola University School of Medicine in 1940, died October 11, aged 44. He was a member of the staff of St. Mary of Nazareth Hospital.

HARRIET C. S. MCCARTHY*, Kankakee, who graduated at the University of Illinois College of Medicine in 1911, died recently, aged 70. She had been certified by the American Board of Psychiatry and Neurology.

LOUISE LUCY MUNCH*, Chicago, who graduated at Northwestern University Woman's Medical School in 1901, died September 4, aged 91, of chronic myocarditis and arteriosclerosis.

RUPERT MERRILL PARKER*, retired, Moline, who graduated at Northwestern University Medical School in 1896, died August 28, aged 88, of injuries received in an automobile accident.

NELSON M. PERCY*, retired, Chicago, who graduated at Rush Medical College in 1899, died October 10, aged 82. He was chief of the surgical staff at Augustana Hospital from 1935,

to 1957. In 1951, the directors of the hospital created the Dr. Nelson M. Percy Research Foundation in his honor. At the time of his death, he was emeritus professor of surgery at the University of Illinois College of Medicine.

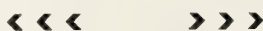
WILLIAM ARTHUR SIMMONS, Tower Hill, who graduated at Barnes Medical College, St. Louis, in 1905, died in Kirkwood August 7, aged 79, of valvular heart disease. He had served on the staff of the East Moline State Hospital.

HARRY T. SWANSON*, Evanston, who graduated at Loyola University School of Medicine in 1916, died October 15, aged 79. He had practiced medicine in Evanston for 40 years.

EDWARD A. TAPPAN*, Paxton, who graduated at the University of Illinois College of Medicine in 1936, died November 1, aged 57, of coronary occlusion.

HERMAN CHRISTIAN TIETZE, Edwardsville, who graduated at Bennett Medical College, Chicago, in 1913, died August 24, aged 73. He was a past president of the Madison County Medical Society.

*Indicates member of the Illinois State Medical Society.



Commercialism

Of especial concern to medical school administrators are the efforts being made to establish relations with teaching, or directly with medical students, that might result in a greater or lesser degree of not particularly wholesome commercial exploitation. Such efforts have taken the form of prize gifts to favored students, inscribed with the donor's firm name, or cash prizes, and of luxury trip week-ends. The latter, apparently, were offered as part of the Student American Medical Association annual convention ballyhoo in such terms as "how would you like to wake up (with your wife or a male or female of your own

choosing) in the out-of-this-world Governor's Suite of the Morrison Hotel?" The convention, in fact, seems to have been pretty thoroughly underwritten by the commercial interests to a degree that would have been shocking in an era only slightly more puritanical than the present.

But enough of Roman holidays. In view of the real contributions that are being made by pharmaceutical firms to the National Fund for Medical Education and to education in other legitimate ways, it would be a pity if the deans should have to protect their schools and their students against the gifts for which, sooner or later, some sort of a moral quid pro quo may be anticipated. *Editorial. Strait Is the Gate. New England J. Med. July 24, 1958.*

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adds the alertness factor
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Dramamine-D keeps patients alert and cheerful while it controls nausea and dizziness. Available on prescription only.

Indications: vertigo; nausea and vomiting of pregnancy, travel sickness and other conditions.

Adult dosage: one tablet every 4 to 6 hours.

Each scored, orange-colored tablet of Dramamine-D contains 50 mg. of Dramamine® and 5 mg. of dextro-amphetamine sulfate.

References on the combination of these two drugs available on request.



SEARLE

BOOK REVIEWS



ELECTROCARDIOGRAPHY. Michael Bernreiter, M.D. \$5.00 Pp. 134, illustrations 92. Philadelphia, Lippincott, 1958.

This new book on electrocardiography, like the many others that have appeared in recent years, is a practical concise manual for the beginner without previous knowledge of electrocardiography. Simple lucid text and good illustrations provide a basis for routine electrocardiographic interpretation of the common arrhythmias, conduction disturbances, ventricular hypertrophy, ischemic disease of the myocardium, electrolyte disturbances, and drug effects. The deluge of beginners' manuals in German, French, and English within the last decade probably arises from the easy availability and technical simplicity of modern electrocardiographs, the increasing recognition of the importance of heart disease, and what the late electrocardiographic expert Frank N. Wilson called "the present wretched state of electrocardiographic diagnosis¹."

Much of the expository clarity of the book stems from the complete absence of discussion of controversial electrocardiographic problems, the history of the development of electrocardiography, or specific reference to the wealth of medical literature on the subject. Approximately one fourth of the text is devoted to the basic electrical phenomena. The volume gives an acceptable pragmatic explanation involving the concept

of the intrinsic deflection useful for practical electrocardiography but the author implies that the bases of electrocardiography are better established than most specialists would be willing to admit. In this straightforward approach to electrocardiography lies the book's greatest virtue and fault.

This book should be useful for students, either for personal study or as a textbook to supplement lectures and practical demonstrations. As an introduction to electrocardiography, it should provide the student with sufficient information to interpret electrocardiograms in an emergency, where an expert is not immediately available, and to make a preliminary interpretation of routine electrocardiograms before they are finally reported. The student, may use this book as a tool through which he subsequently can master the field of electrocardiography through further reading in the literature, consultation of comprehensive works (of which to date none is completely satisfactory), and the comparison of his preliminary or emergency interpretations with those of others and with the final outcome of the clinical case. The book is not appropriate for a reference work or for advanced study.

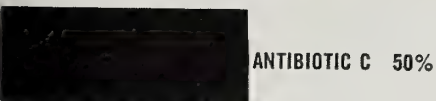
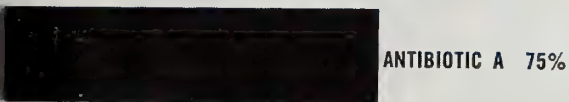
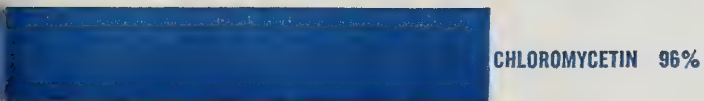
References

1. *Advances in Internal Medicine*. New York, Interscience Publishers, Inc., 2:1, 1947.

W. H. W.

(Continued on page 58)

IN VITRO SENSITIVITY OF PATHOGENIC STAPHYLOCOCCI TO CHLOROMYCETIN AND TO FOUR OTHER MAJOR ANTIBIOTICS*



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Adapted from Godfrey & Smith.⁴ Staphylococci studied were strains isolated from 28 patients in a general hospital.

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BOOK REVIEWS (Continued)

ORR'S OPERATIONS OF GENERAL SURGERY.

George A. Higgins, M.D. and Thomas G. Orr, Jr., M.D. 3rd ed. \$20.00. Pp. 1016. Philadelphia, W. B. Saunders Co., 1958.

This revised edition has many welcome additions and deletions, as well as many new illustrations. There has always been a liberal use of figures from other texts and magazines which in many instances come from the original articles.

In general the text includes only well established and time-proved operative techniques. Both thoracic and cardiovascular surgery have been rewritten completely as well as the chapter on head and neck surgery. There is a practical discussion on resuscitation of the heart after cardiac arrest and a short, practical presentation of the more frequent injuries and diseases of the bones and joints.

All the procedures are clear and concise, and do not go into great detail. If more detail is needed, the reader can refer to the original article or book. The operations presented and discussed are standard procedures as accepted by the greater proportion of physicians and surgeons today.

I can heartily recommend this volume to interns, residents, and practicing surgeons.

R.J.B.

< >

STRABISMUS OPHTHALMIC SYMPOSIUM II. Edited by James H. Allen, M.D. \$16.00. Pp. 552. St. Louis, C. V. Mosby Co., 1958.

Between the pages of the rather oddly titled book is a veritable gold mine of information on the entire field of the deviating eye. The volume itself is based on the Symposium presented by the New Orleans Academy of Ophthalmology and includes chapters presented by outstanding men in the fields of ophthalmology and neuro-ophthalmology (Adler, Burian, H. W. Brown, Costenbader, Fink, Guibor, Knapp, and Swan with a repetition of the notes on terminology and classification of squint by the late Dr. Lancaster.) There is not always complete agreement in theory or treatment in the viewpoints of the various authors presented. However, as Dr. Allen mentions, there is far less disagreement than in Symposium I with virtually identical contributors.

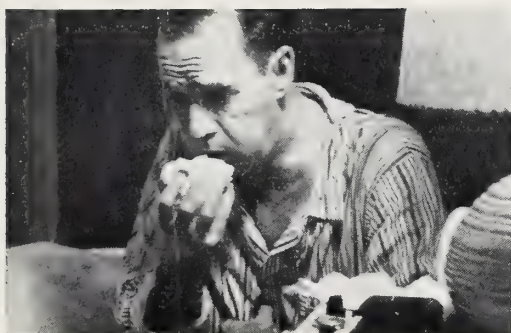
(Continued on page 60)

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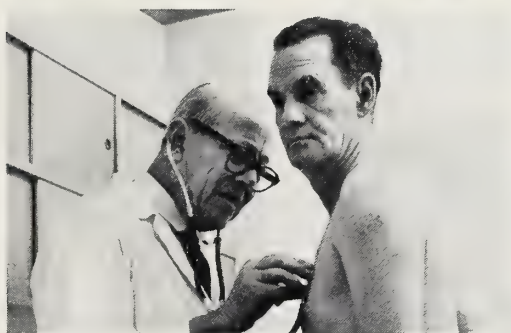
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BOOK REVIEWS (Continued)

While this volume is intended for the ophthalmic practitioner, the basic anatomy is a welcome, concise, yet detailed inclusion. To me, the refreshing deviation from the all too frequent vague generalities of the usual textbooks is the adherence to specific details in this one. Definite suggestions are given on the duration of occlusion, types and methods of use of medications, miotics or cycloplegics, the whens and hows of orthoptics and surgery, and the types of corrections prescribed. Altogether, this is a valuable addition to the recent literature.

E.F.W.

ORTHOPEDIC DISEASES. Ernest Aegerter, M.D. and John A. Kirkpatrick, Jr., M.D. \$12.50. Pp. 602, Philadelphia, W. B. Saunders Co.

The authors state "The diagnosis of orthopedic diseases necessitates an understanding of the diseases which affect the musculoskeletal system. An understanding of the physiology and pathology of bone; from these disciplines arise the clinical manifestations and the radiographic and laboratory findings."

This book is for all physicians interested in

orthopedics as well as for specialists in orthopedic diseases. It is well illustrated and the reproductions of microscopical sections are above usual. As a reference it is practical because of the good index and the manner of presentation of each section.

C.P.B.

BOOKS RECEIVED

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be received as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

EYE SURGERY. By H. B. Stallard, M.B.E., M.A., M.D. (Cantab.), F.R.C.S. (Eng.), Hon. LL.D. (St. Andrews) Surgeon, The Moorfields Eye Hospital; Eye Surgeon, St. Bartholomew's Hospital. Third edition, revised. 671 illustrations. The Williams & Wilkins Company, Baltimore. \$18.00.

EPILEPSY. By Manfred Sakel, M.D., with a preface by Otto Poetzi, professor emeritus, University and Clinic of Vienna. Philosophical Library, New York. \$5.00.

SCHIZOPHRENIA. By Manfred Sakel, M.D., with a foreword by Prof. Hans Hoff, Head, Department of Neurology & Psychiatry, University of Vienna. \$5.00.

WATER AND ELECTROLYTE METABOLISM IN RELATION TO AGE AND SEX. Ciba Foundation Colloquia on Aging. Volume 4. G. E. W. Wolstenholme and Maeve O'Connor, editors for the Ciba Foundation. 85 illustrations. Little, Brown and Company, Boston. \$8.50.

(Continued on page 64)

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BOOKS RECEIVED (Continued)

- NEUROLOGICAL BASIS OF BEHAVIOR. Ciba Foundation Symposium. By G. E. W. Wolstenholme, and Cecilia M. O'Connor, editors for the Ciba Foundation. 109 illustrations. In commemoration of Sir Charles Sherrington. Little, Brown and Company, Boston. \$9.00.
- TREATMENT OF BREAST TUMORS. By Robert S. Pollack, M.D., F.A.C.S., 47 plates and 16 text figures. Lea & Febiger, Philadelphia. 147 pages. \$6.00.
- THE DOCTOR BUSINESS. By Richard Carter. Doubleday & Company, Inc., Garden City, New York. \$4.00.
- THE CARE OF THE GERIATRIC PATIENT. Edited by E. V. Cowdry, Ph.D., Sc.D. (Hon.). The C. V. Mosby Company, St. Louis. \$8.00.
- PATHOPHYSIOLOGY IN SURGERY. By James D. Hardy, M.S., (Chem.), M.D., F.A.C.S. The Williams & Wilkins Company, Baltimore, \$19.00.
- POISONING, A Guide to Clinical Diagnosis and Treatment. By W. F. vonOettingen, M.D., Ph.D., Second edition. 627 pages. W. B. Saunders Company, Philadelphia and London. \$12.50.
- SEX AND THE ADOLESCENT. By Maxine Davis; foreword by J. Roswell Gallagher, M.D., The Dial Press, New York, \$5.00.
- PEDIATRIC METHODS AND STANDARDS. Department of Pediatrics, School of Medicine, University of Pennsylvania. Fred H. Harvie, M.D., Associate Professor of Clinical Pediatrics, Editor. Third edition. Lea & Febiger, Philadelphia. \$4.50.
- EMERGENCY WAR SURGERY. U. S. Armed Forces Issue of Nato Handbook. Prepared for use by the medical services of Nato nations. Published by The Surgeon General, Department of the Army.
- GENETIC CONCEPT FOR THE ORIGIN OF CANCER. Annals of the New York Academy of Sciences. Volume 71, Art. 6. Otto V. St. Whitelock, Editor in Chief. Published by the Academy.
- BASIC BIODYNAMICS. By Edward J. Kempf. Annals of the New York Academy of Sciences. Volume 73, Art. 4. Otto V. St. Whitelock, Editor in Chief. Published by the Academy.
- CONTRIBUTIONS OF THE PHYSICAL, BIOLOGICAL, AND PSYCHOLOGICAL SCIENCES IN HUMAN DISABILITY. Annals of the New York Academy of Sciences. Otto V. St. Whitelock, Editor in Chief. Published by the Academy.
- ENZYMES IN BLOOD. Annals of the New York Academy of Sciences. Volume 75, Art. 1. Otto V. St. Whitelock, Editor in Chief. Published by the Academy.
- THIRD TISSUE HOMOTRANSPLANTATION CONFERENCE. Annals of the New York Academy of Sciences. Volume 73, Art. 3. Otto V. St. Whitelock, Editor in Chief. Published by the Academy.
- THE BASIC AND CLINICAL RESEARCH OF THE NEW ANTIBIOTIC, KANAMYCIN. Annals of the New York Academy of Sciences. Volume 76, Art. 2. Published by the Academy.
- TUMORS AND TUMOROUS CONDITIONS OF THE BONES AND JOINTS. By Henry L. Jaffe, M.D. 629 pages. Lea & Febiger, Philadelphia, Pa. \$18.50.
- DIFFICULT DIAGNOSIS, A Guide to the Interpretation of Obscure Illness. By H. J. Roberts, M.D., Diplomate of the American Board of Internal Medicine. 913 pages. W. B. Saunders Company, Philadelphia and London. \$19.00.

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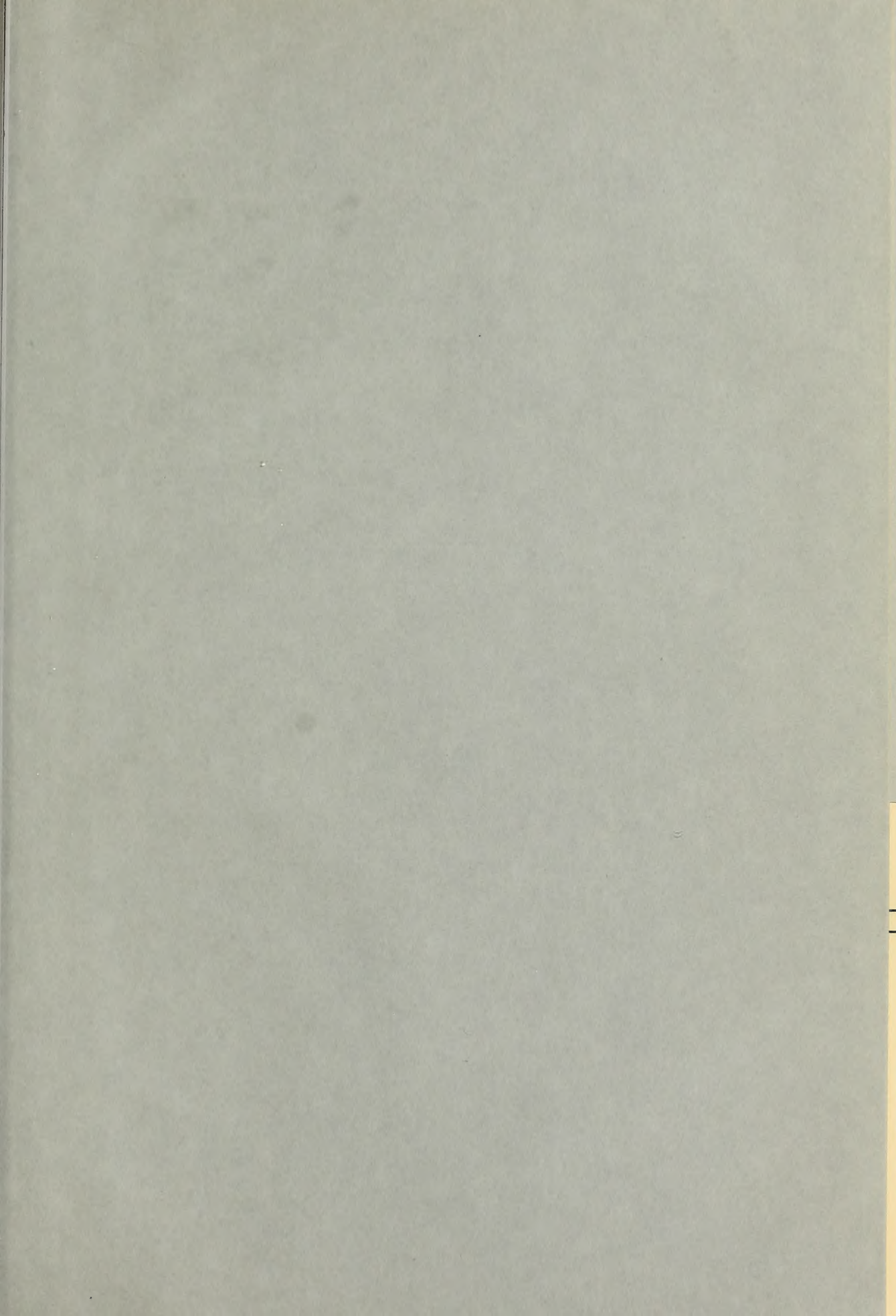
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